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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Borrett**	**DURATION**	3 hours
USER NAME	**hsexam1**	**PASSWORD**	**YHKXXX**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

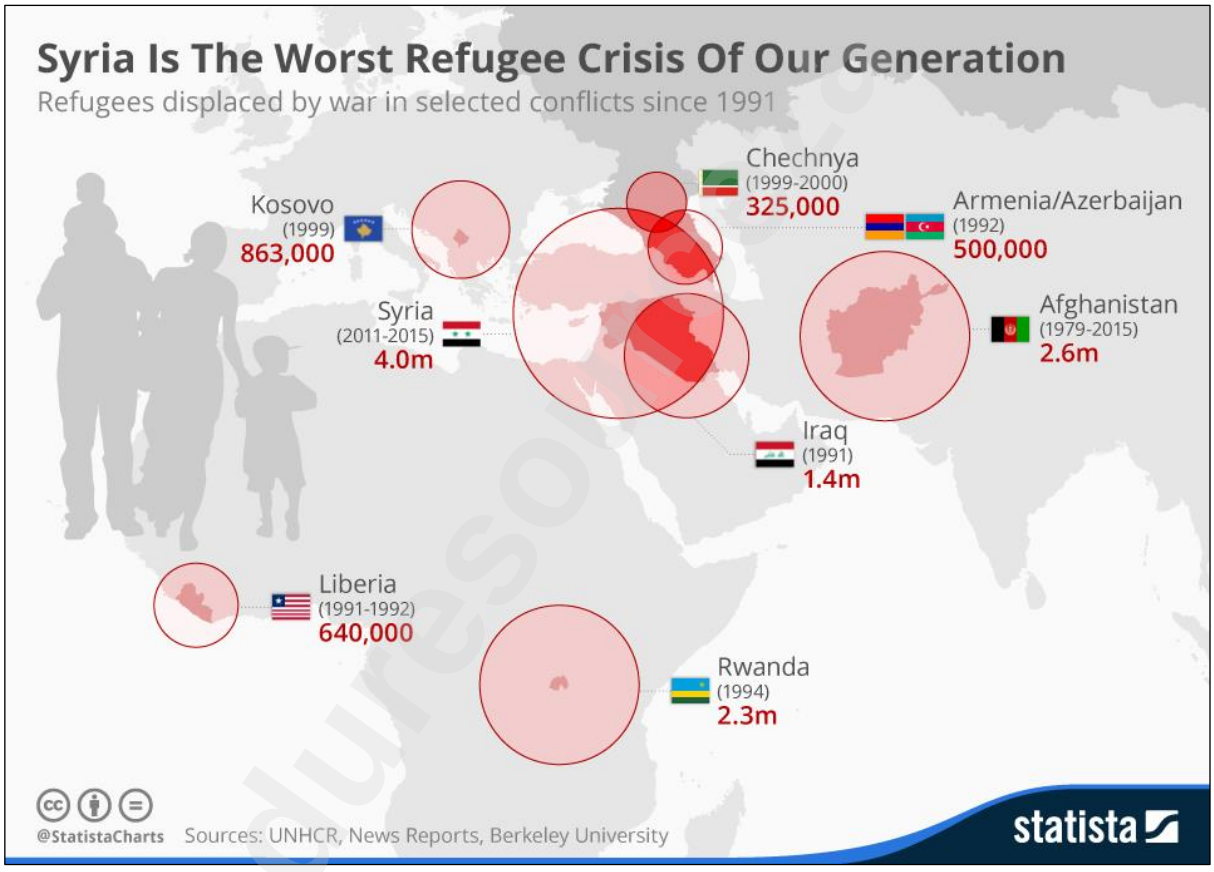
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-01-23 00:00:00	France	119820	17505
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2015-06-16 00:00:00	Germany	230995	14560
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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
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EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Brondani**	**DURATION**	3 hours
USER NAME	**hsexam2**	**PASSWORD**	**PXNRQY**

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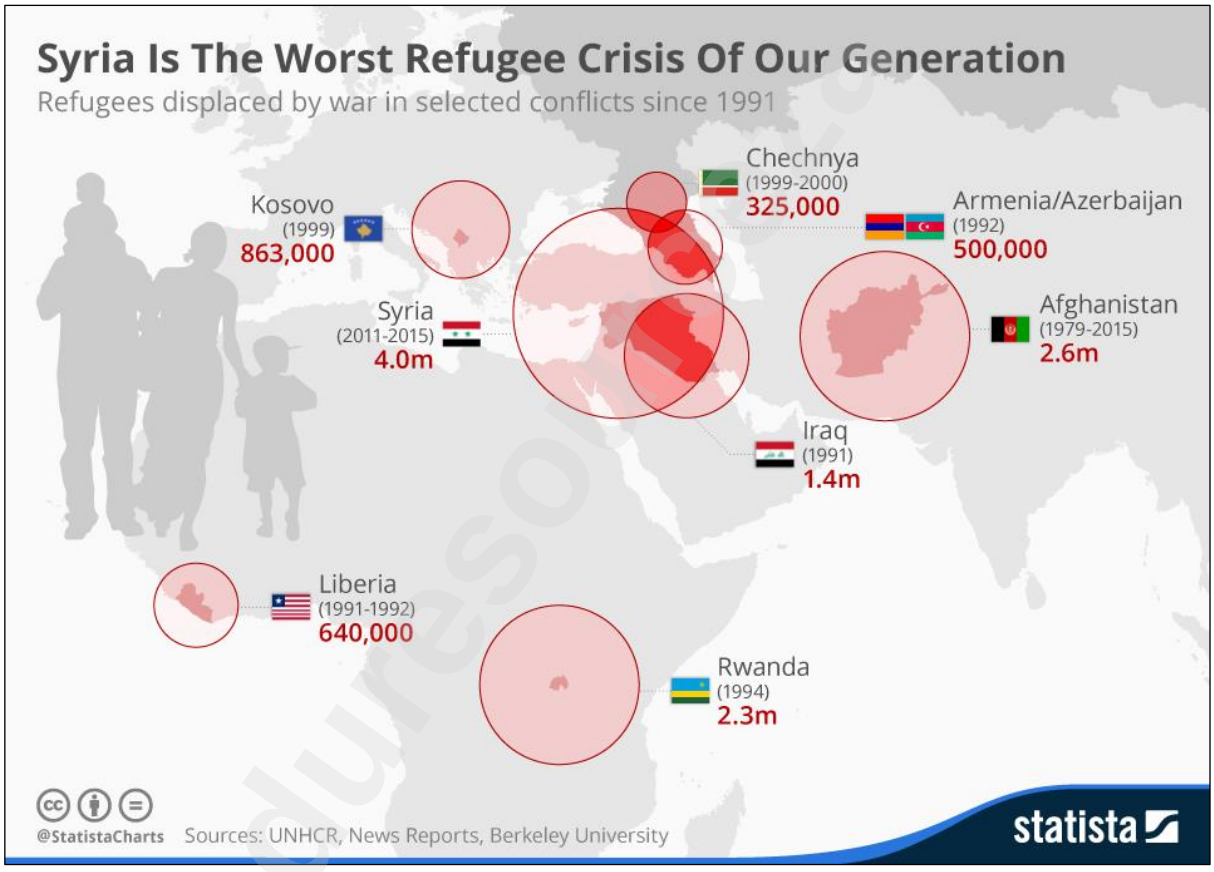
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Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
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JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
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(4)

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Note that some organisations have made more than one donation.

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(3)

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QUESTION 4 **6 MARKS**

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EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Chen**	**DURATION**	3 hours
USER NAME	**hsexam3**	**PASSWORD**	**KETEHA**

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SECTION A: SQL 40 MARKS

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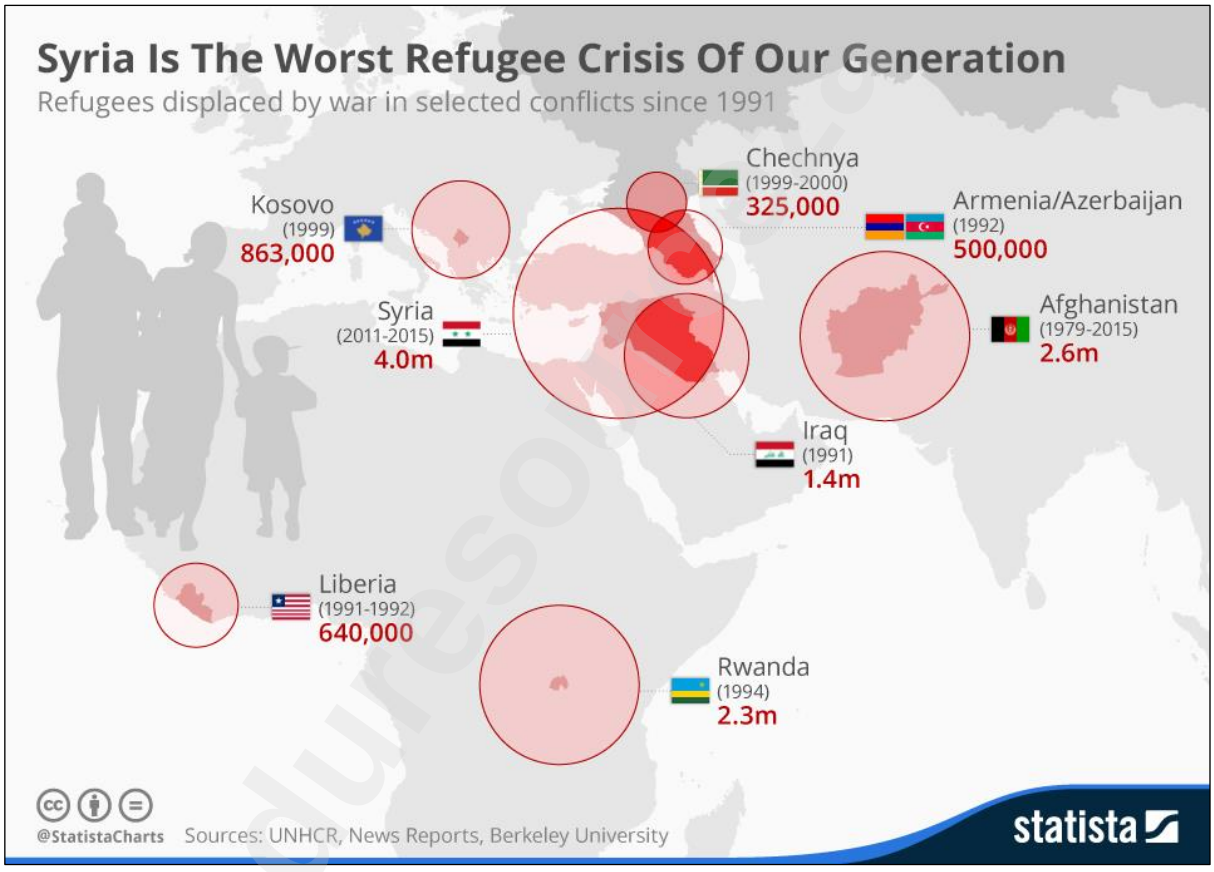
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Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

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Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Curtis**	**DURATION**	3 hours
USER NAME	**hsexam4**	**PASSWORD**	**RCOAYE**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

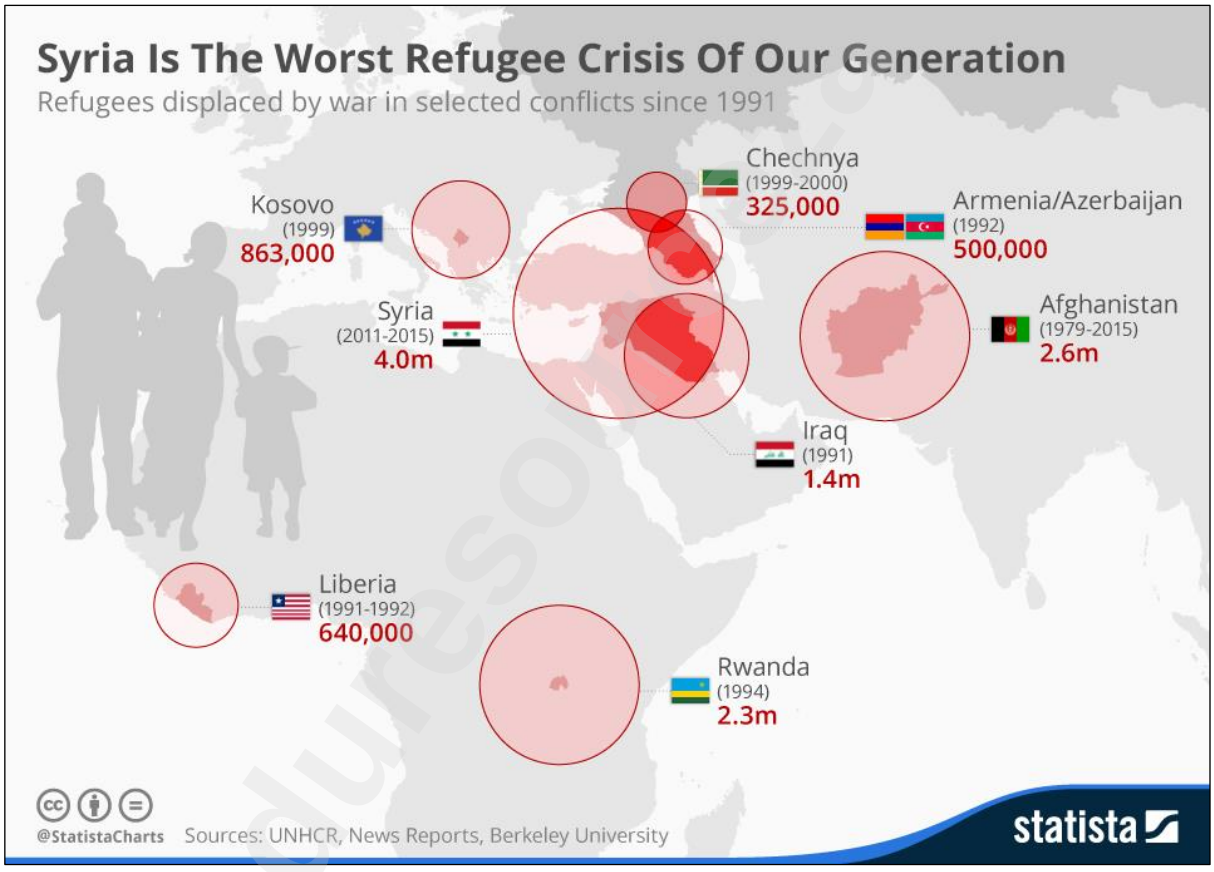
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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```
Donations
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WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Karner**	**DURATION**	3 hours
USER NAME	**hsexam5**	**PASSWORD**	**AMKYRP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

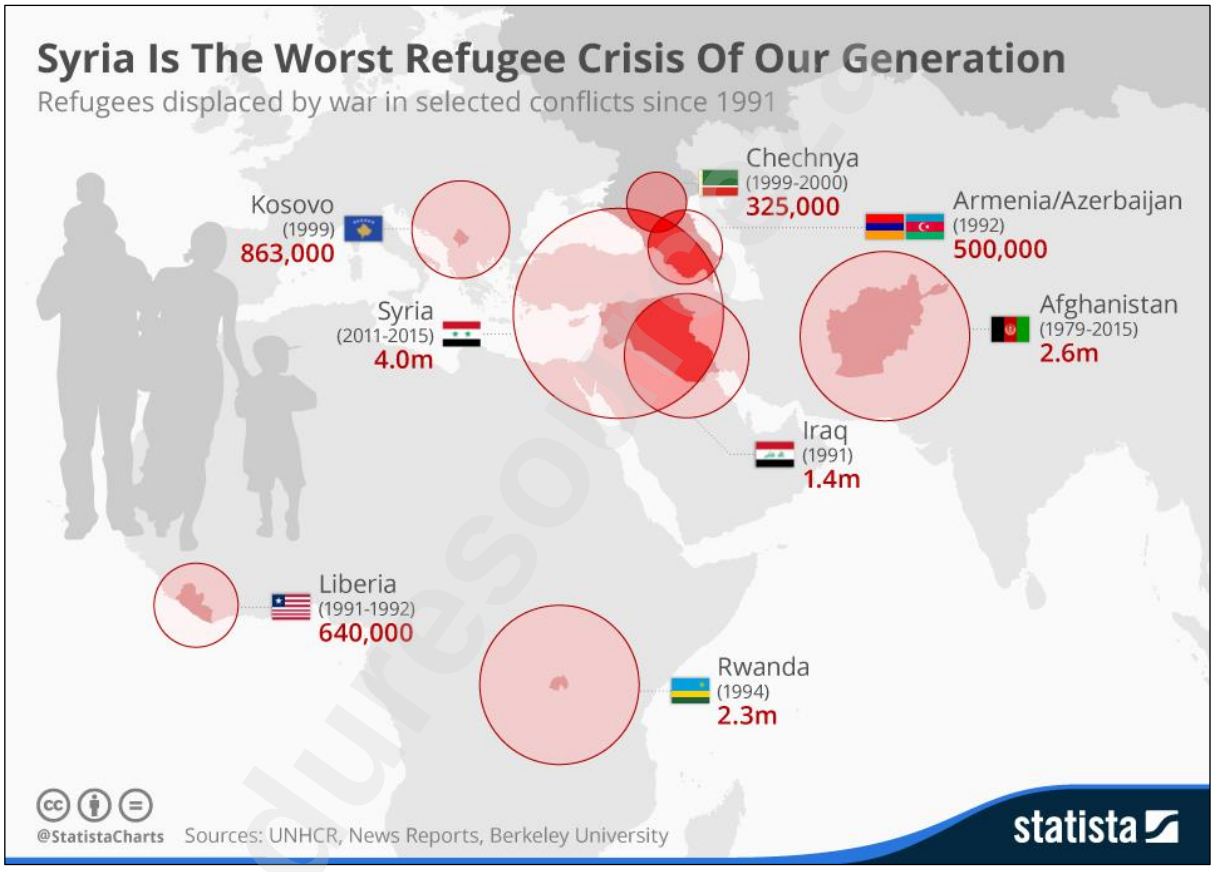
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

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Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Killian**	**DURATION**	3 hours
USER NAME	**hsexam6**	**PASSWORD**	**NFDPOP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

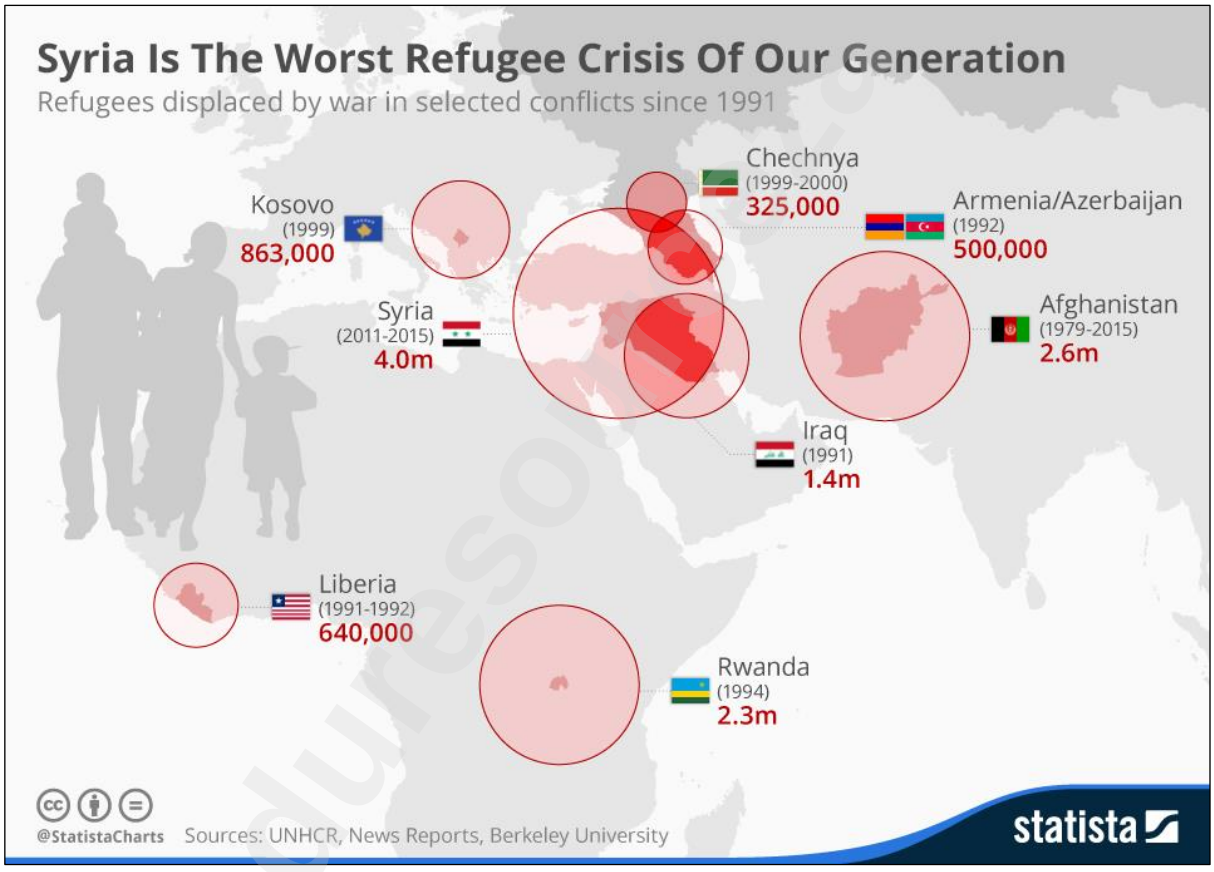
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
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Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-01-23 00:00:00	France	119820	17505
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
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WHO#health#http://www.who.tk/#Turkey#
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CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

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3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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WHO 2000000
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ACTED 3000000
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WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
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```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Li**	**DURATION**	3 hours
USER NAME	**hsexam7**	**PASSWORD**	**GKRWSQ**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

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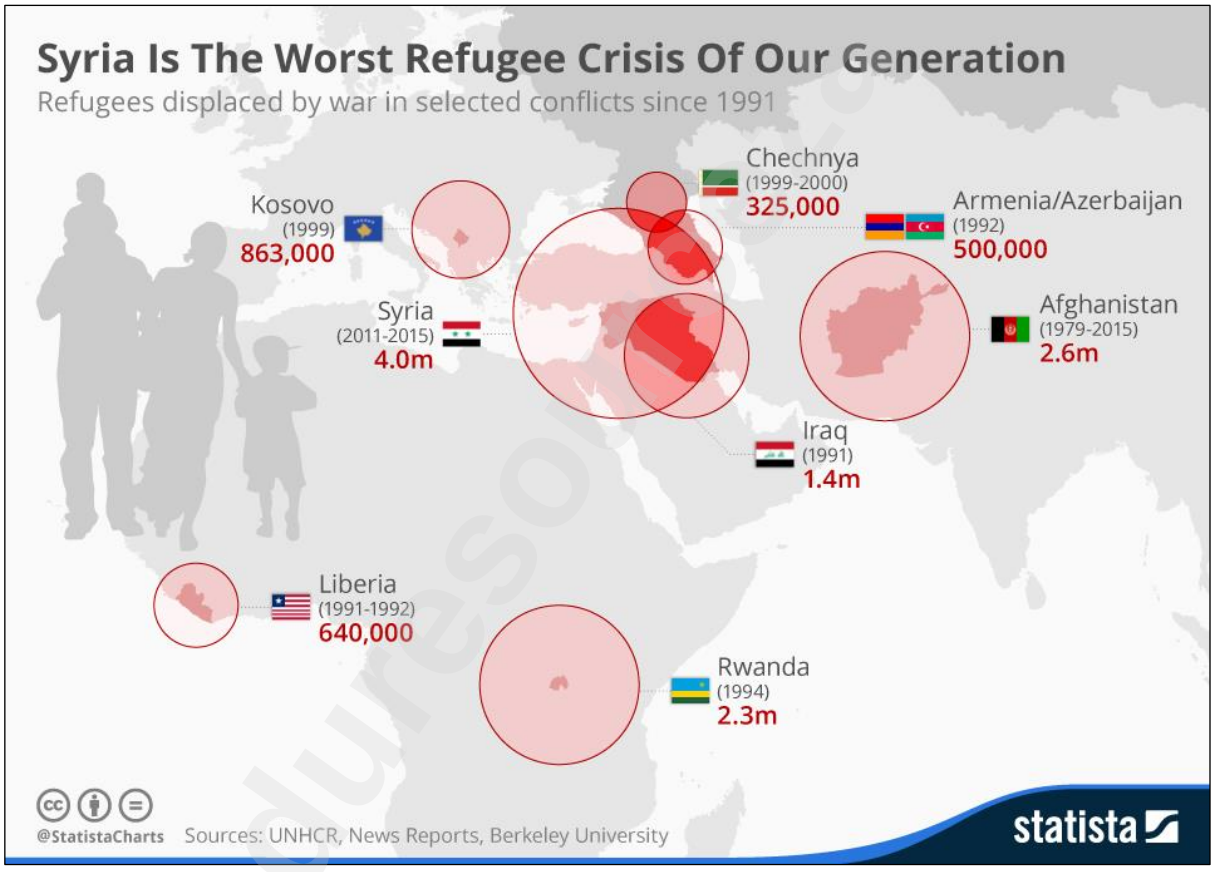
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Turkey	Europe
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SECTION B OOP 80 MARKS

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Questscope#education#http://www.questscope.org#Jordan#
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(3)

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QUESTION 4 **6 MARKS**

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EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Lou**	**DURATION**	3 hours
USER NAME	**hsexam8**	**PASSWORD**	**OKYUWL**

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STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
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SECTION A: SQL 40 MARKS

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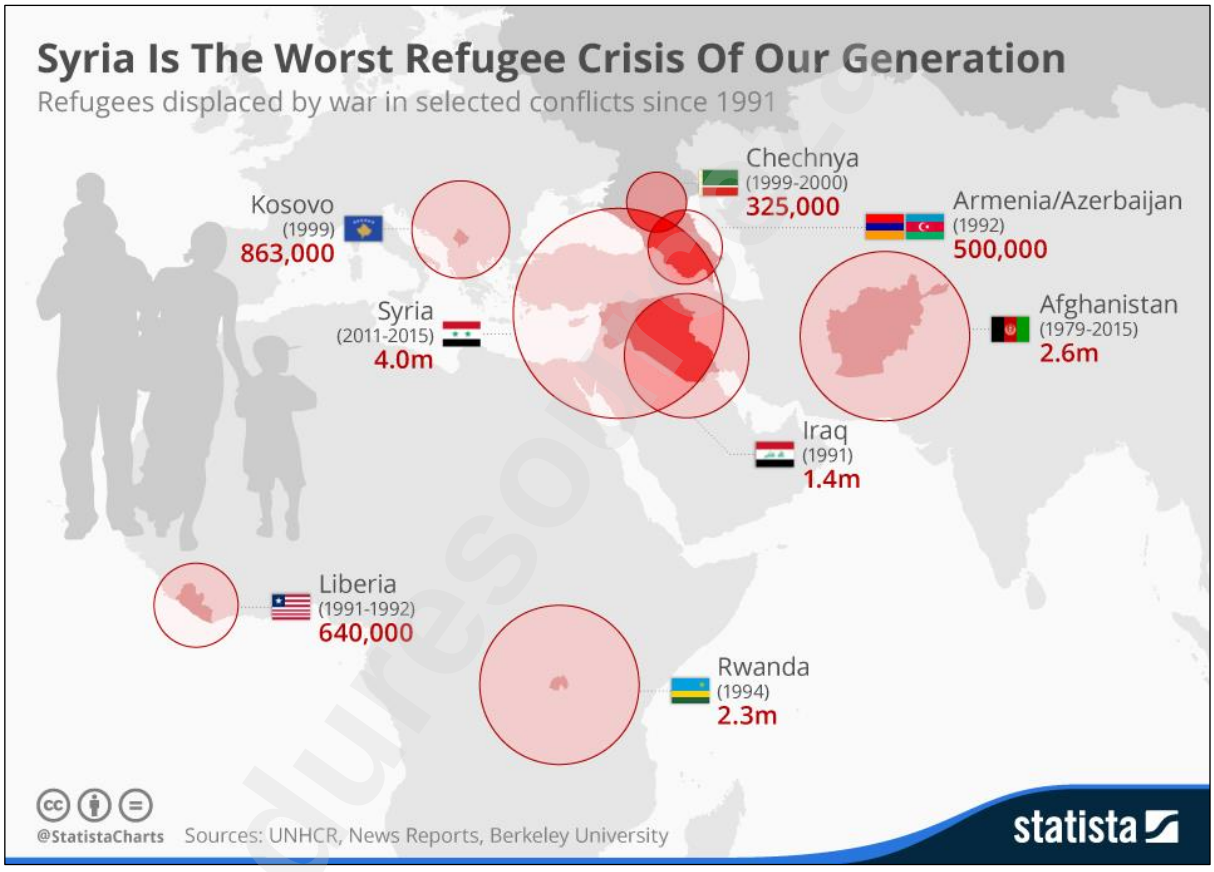
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SECTION B OOP 80 MARKS

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2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Macnamara**	**DURATION**	3 hours
USER NAME	**hsexam9**	**PASSWORD**	**OLWHPW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

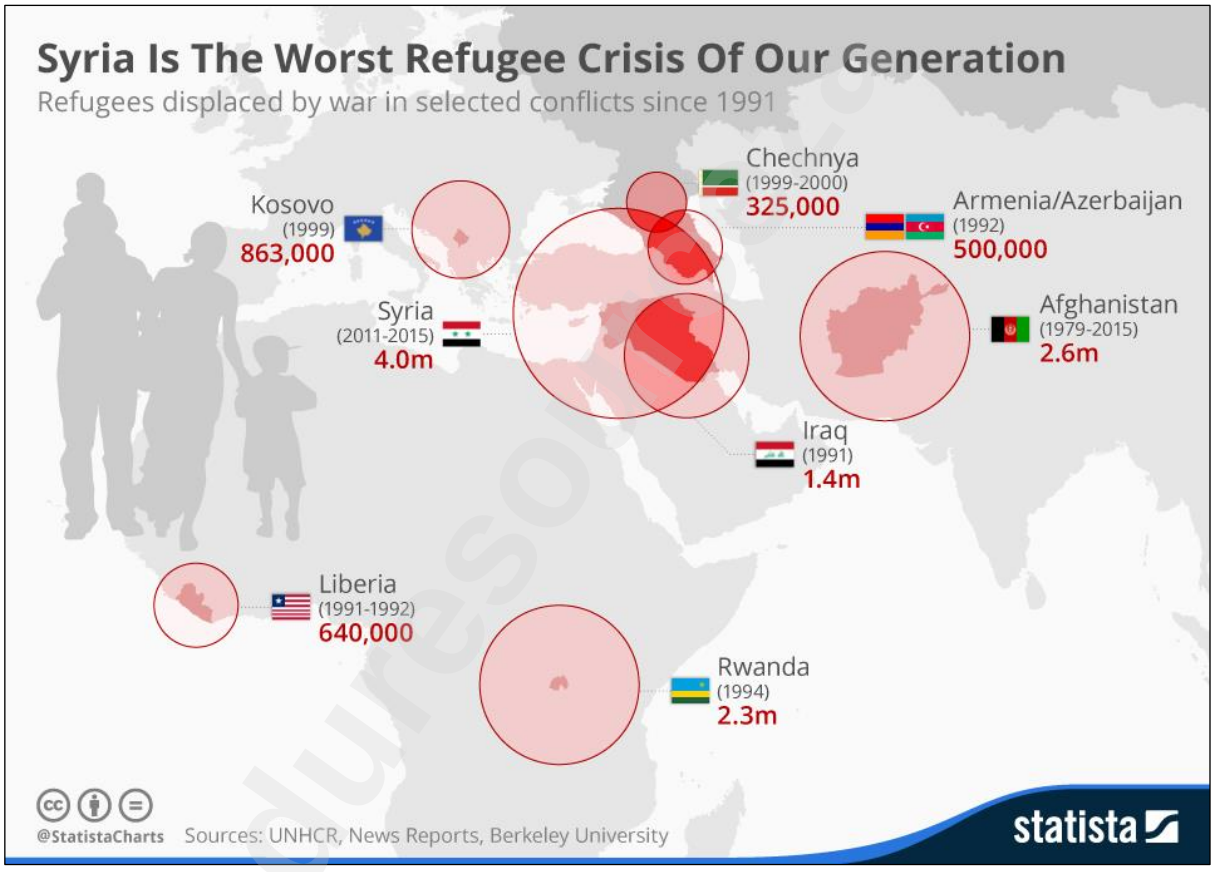
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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ACTED 3000000
UNHCR 100000
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CRH 100000
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UNHCR 500000
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```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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- read and extract the data from the text file called donations.txt (4)
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WFP 200000
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UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**McCallum**	**DURATION**	3 hours
USER NAME	**hsexam10**	**PASSWORD**	**JJSUXC**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

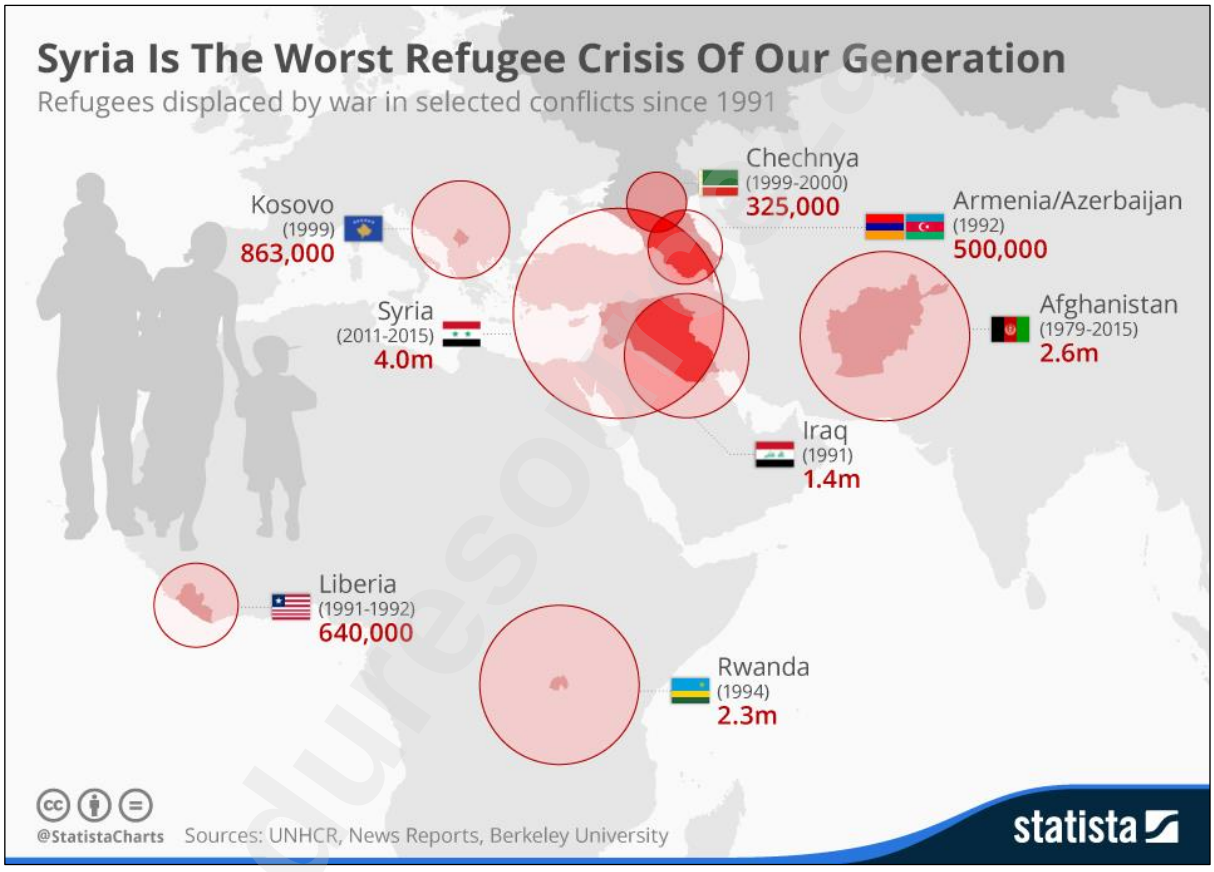
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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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The data structures and sample data are as follows:

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Continent	Short Text

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Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-07-17 00:00:00	Greece	10000	50
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2015-08-04 00:00:00	Hungary	86254	1598
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

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Data:

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

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(4)

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- partArr: Array of Partners objects - size: integer
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Note that some organisations have made more than one donation.

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ACTED 3000000
UNHCR 100000
WFP 200000
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CRH 100000
CRH 100000
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UNICEF 3300000
UNHCR 500000
CRH 100000
```

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```
Donations
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WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Mundove**	**DURATION**	3 hours
USER NAME	**hsexam11**	**PASSWORD**	**QNXMEC**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

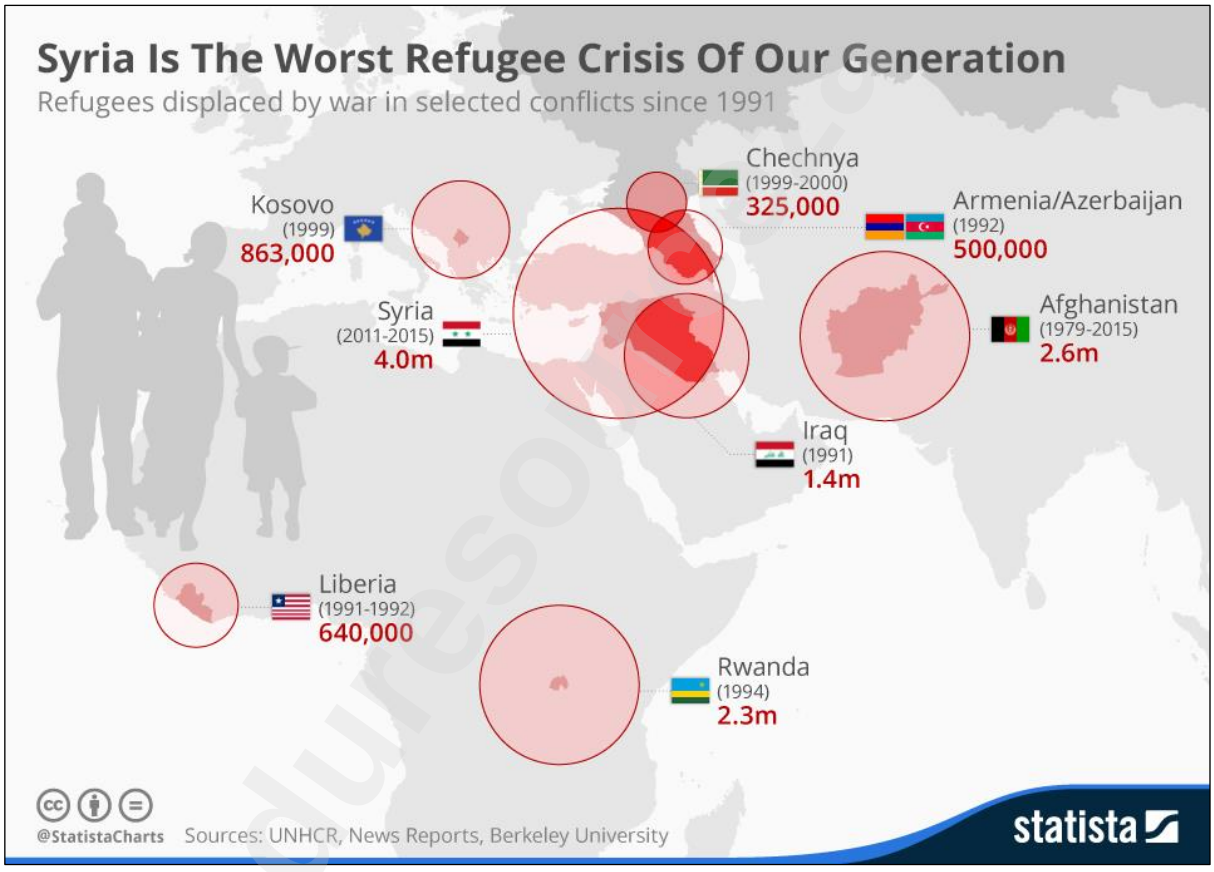
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from Niall McCarthy, July 13th, 2015

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

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CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

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3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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WHO 2000000
CRH 1000000
ACTED 3000000
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WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
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WFP 200000
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UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Naude**	**DURATION**	3 hours
USER NAME	**hsexam12**	**PASSWORD**	**RROJMI**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

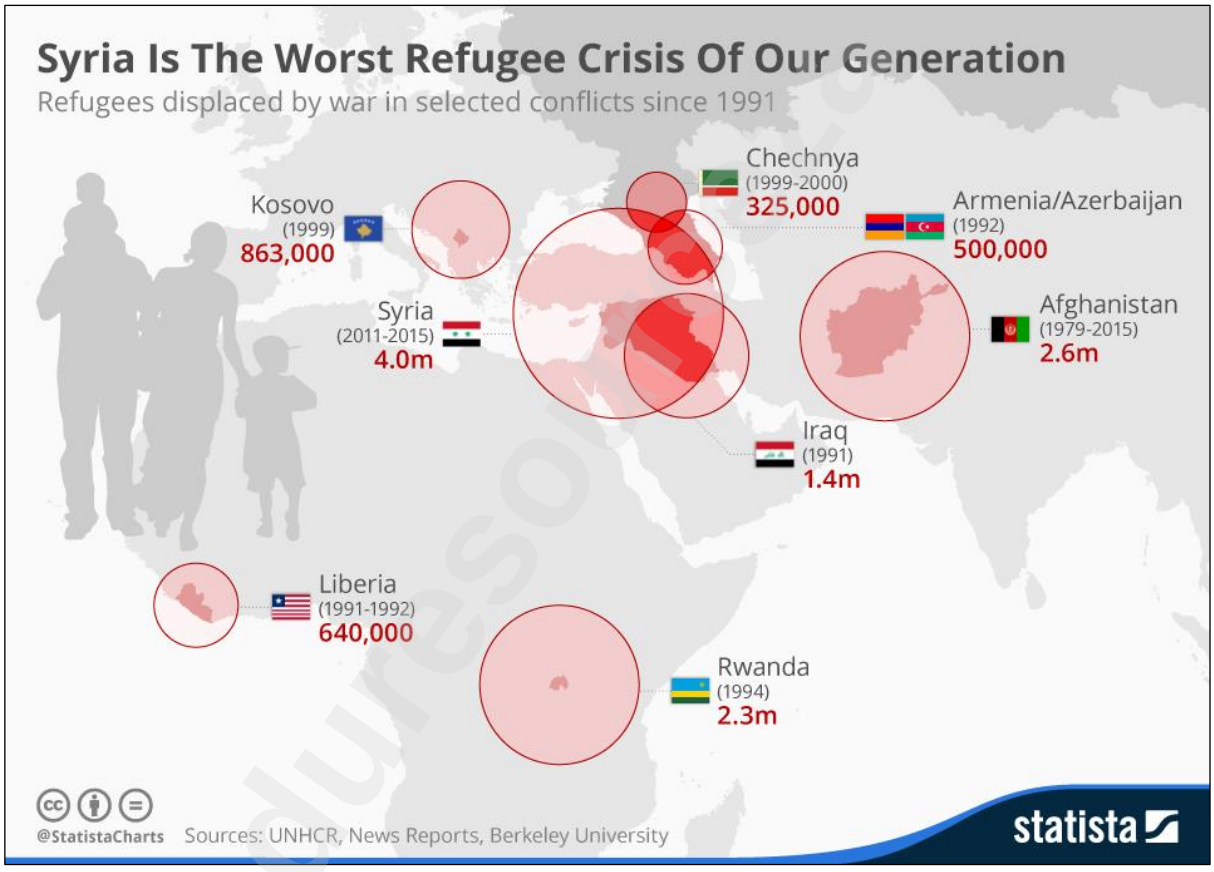
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from Niall McCarthy, July 13th, 2015

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Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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Questscope#education#http://www.questscope.org#Jordan#
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```
(4)

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(3)

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QUESTION 4 **6 MARKS**

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Panaino**	**DURATION**	3 hours
USER NAME	**hsexam13**	**PASSWORD**	**KDNRMR**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

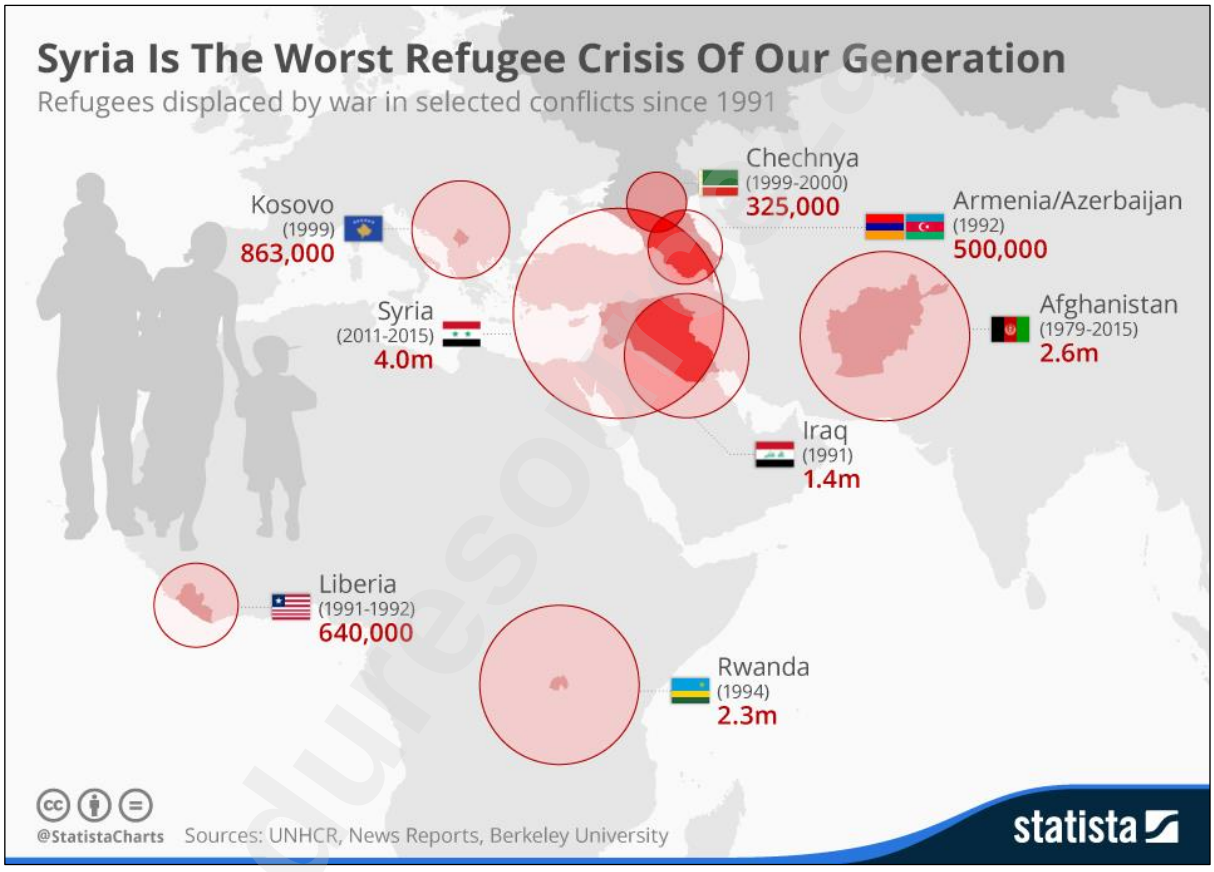
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

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- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

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CRH 1000000
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```

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Patrizi**	**DURATION**	3 hours
USER NAME	**hsexam14**	**PASSWORD**	**DOXQHL**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
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SECTION A: SQL 40 MARKS

SCENARIO

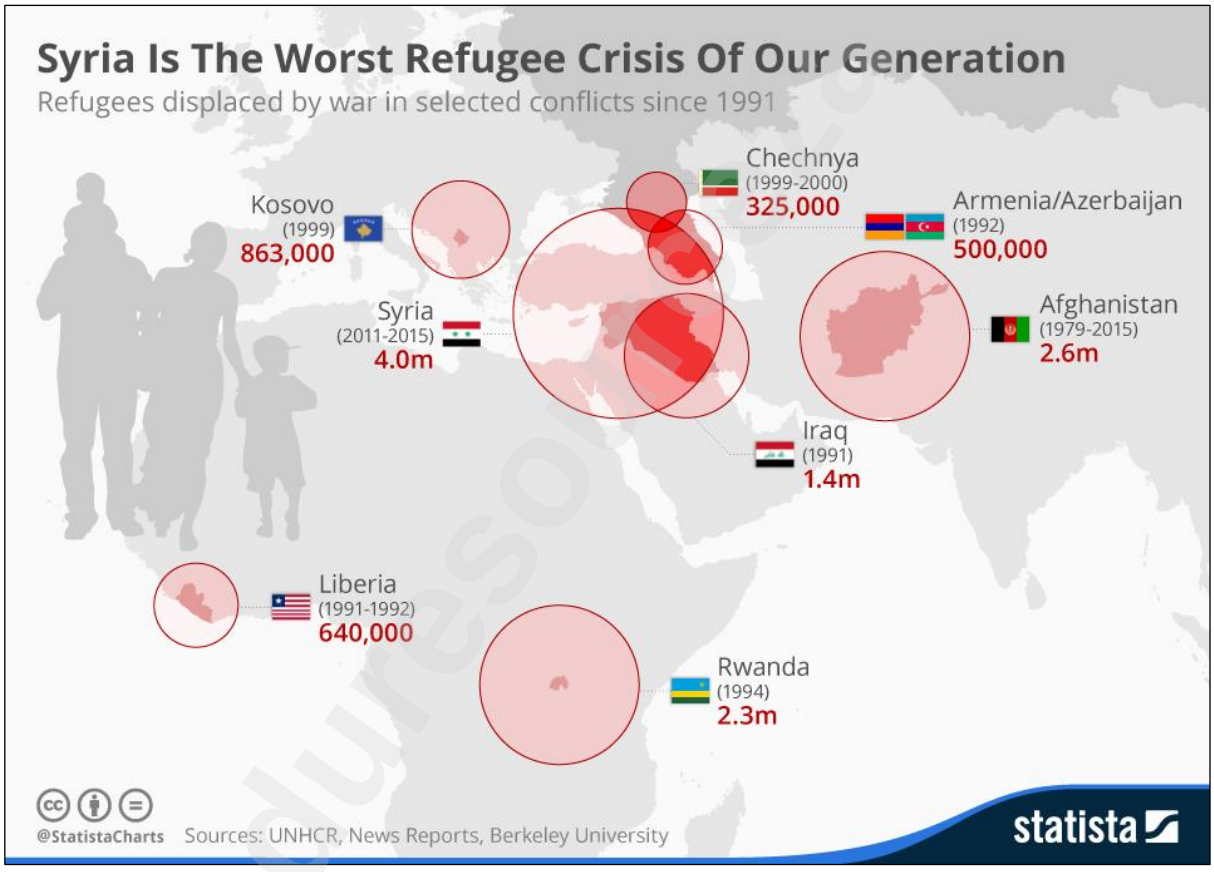
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

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tblCountries

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Country	Short Text
Continent	Short Text

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Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

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1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
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WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

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Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Senarathne**	**DURATION**	3 hours
USER NAME	**hsexam15**	**PASSWORD**	**JXDUAW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

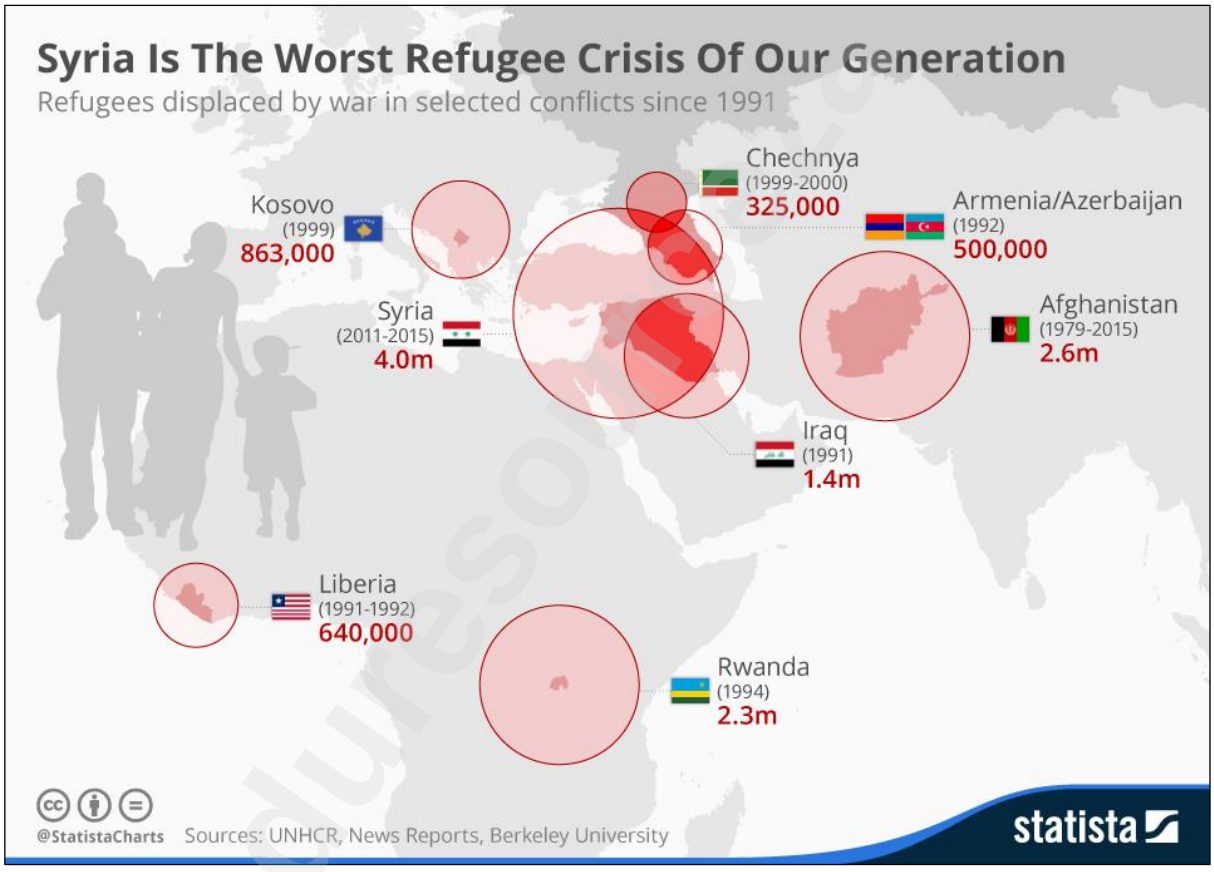
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France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

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SECTION B OOP 80 MARKS

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UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Sorour**	**DURATION**	3 hours
USER NAME	**hsexam16**	**PASSWORD**	**WHITBW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

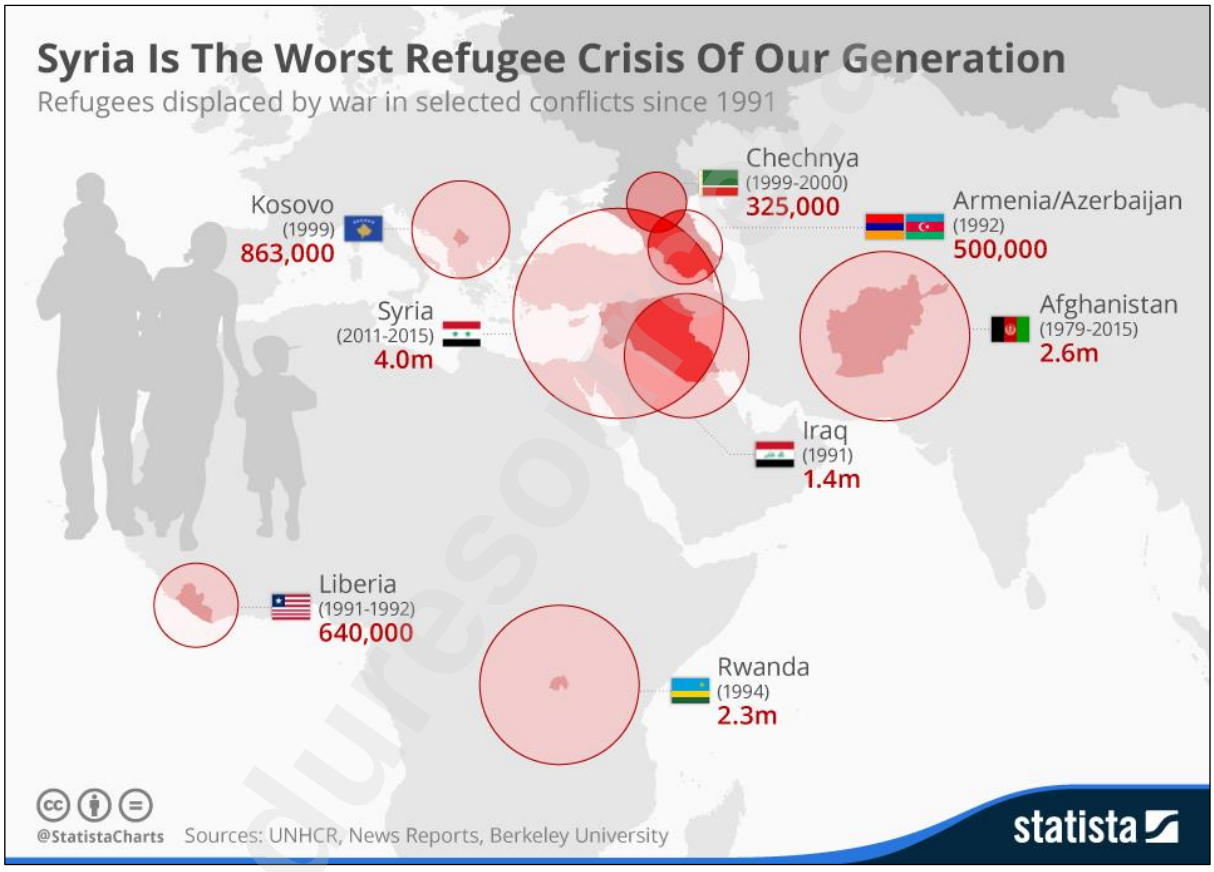
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- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Stroberg**	**DURATION**	3 hours
USER NAME	**hsexam17**	**PASSWORD**	**WPNQGV**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

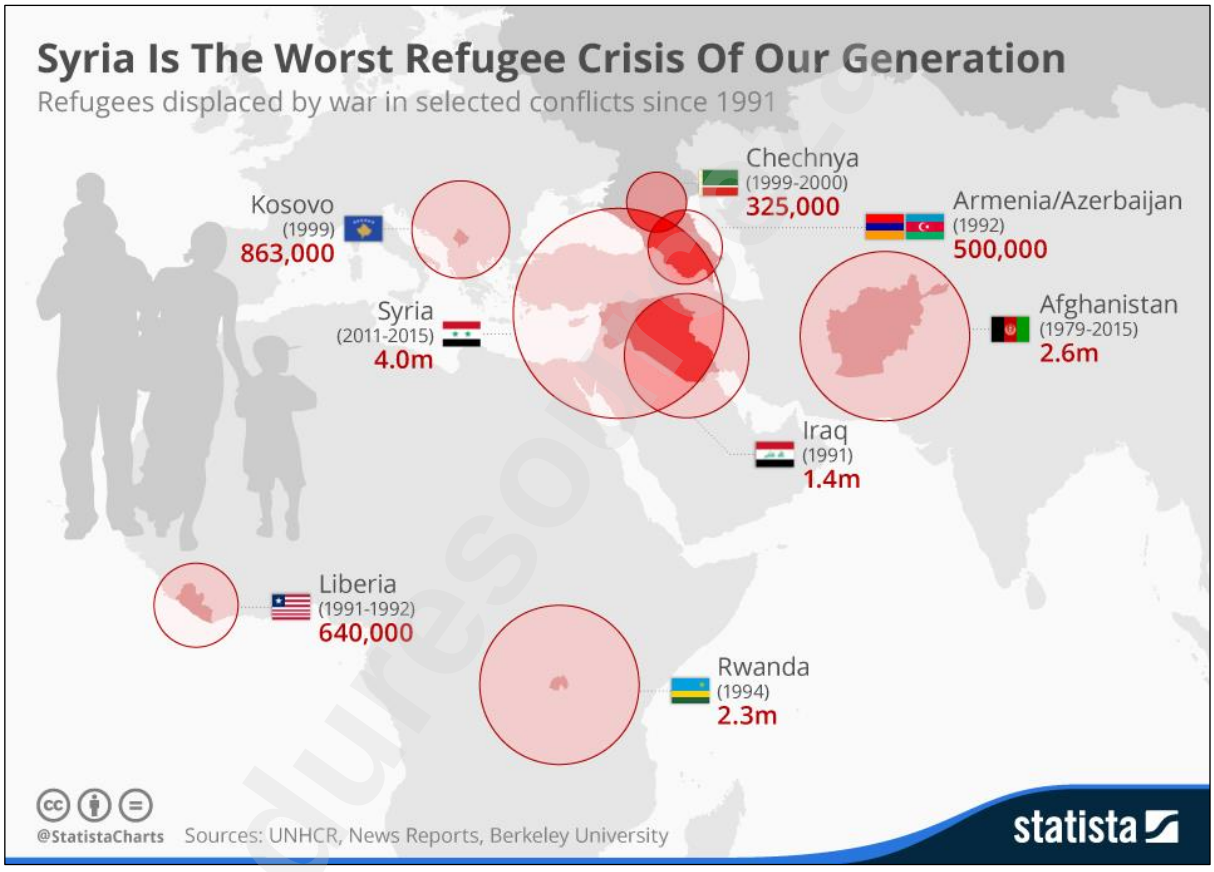
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
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2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
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2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
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CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Thatcher**	**DURATION**	3 hours
USER NAME	**hsexam18**	**PASSWORD**	**BPWELT**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

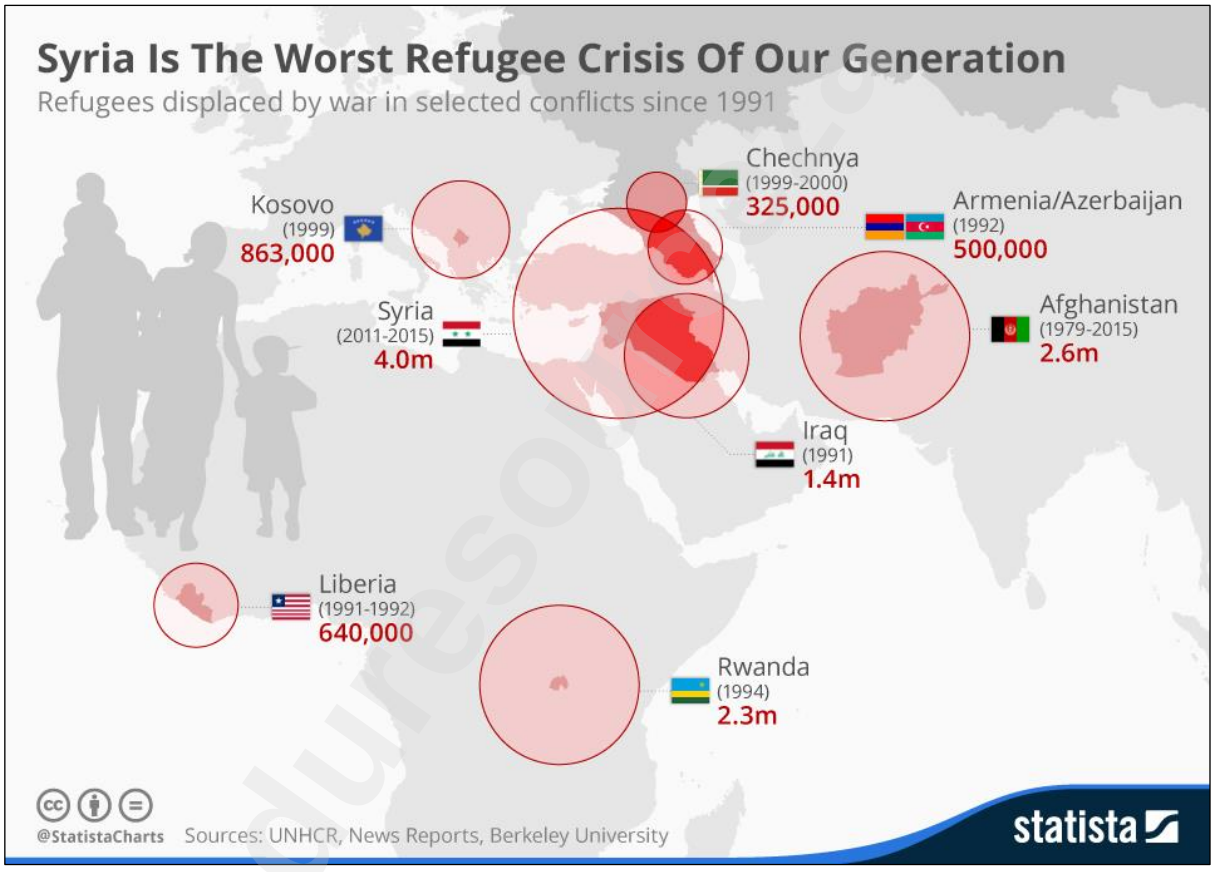
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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

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The data for the organisations is stored in the file **partners.txt** in the following format.

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Data:

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

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2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

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2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

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Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Yang**	**DURATION**	3 hours
USER NAME	**hsexam19**	**PASSWORD**	**HSSBNW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

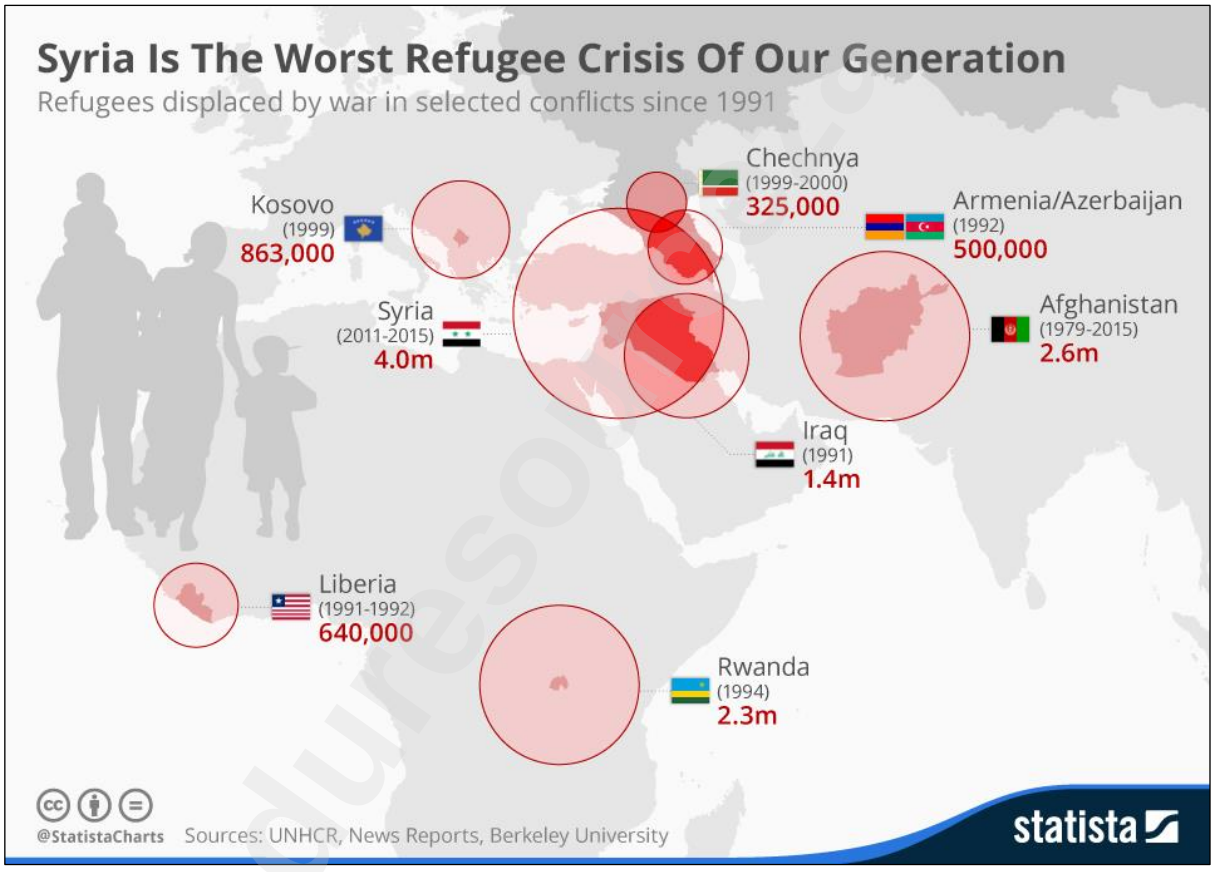
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
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2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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ACTED 3000000
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CRH 100000
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UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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WHO 2500000
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(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME		**DURATION**	3 hours
USER NAME	**hsexam20**	**PASSWORD**	**VLNSPP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

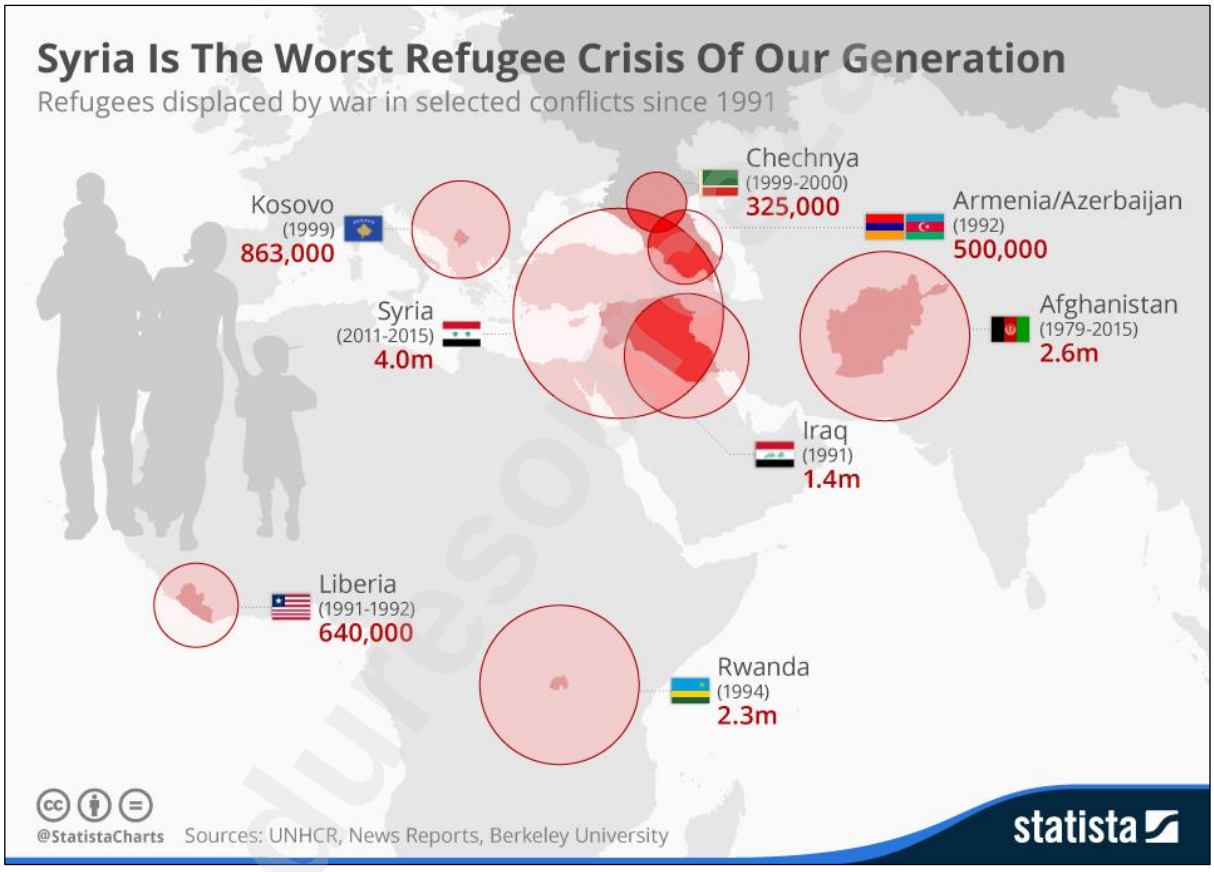
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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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Continent	Short Text

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Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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- Health
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You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

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Website : http://www.unhcr.org/
Country : Turkey
```
(4)

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You are provided with the following class table, for your array class:

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- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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QUESTION 4 **6 MARKS**

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME		**DURATION**	3 hours
USER NAME	**hsexam21**	**PASSWORD**	**PGSGUI**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

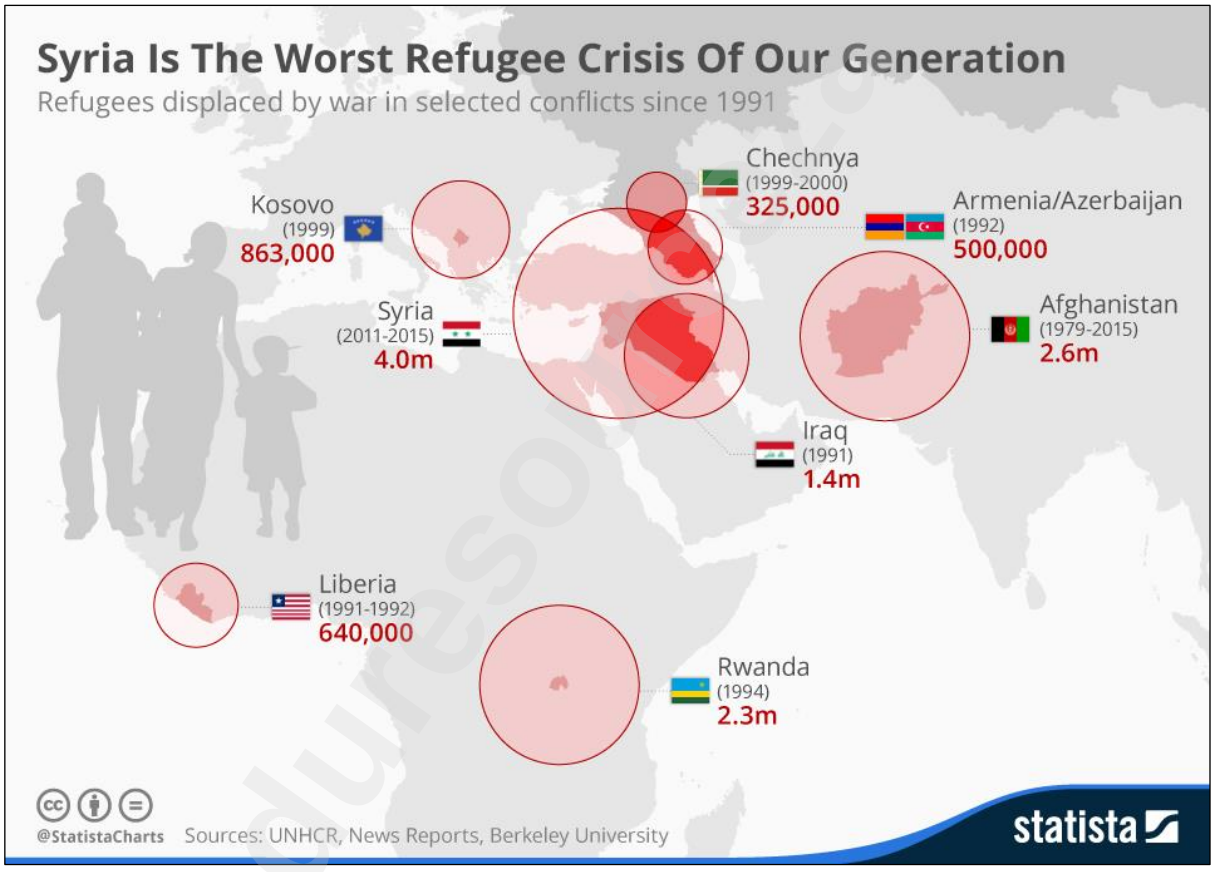
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Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Campbell**	**DURATION**	3 hours
USER NAME	**hsexam22**	**PASSWORD**	**DOFSDR**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

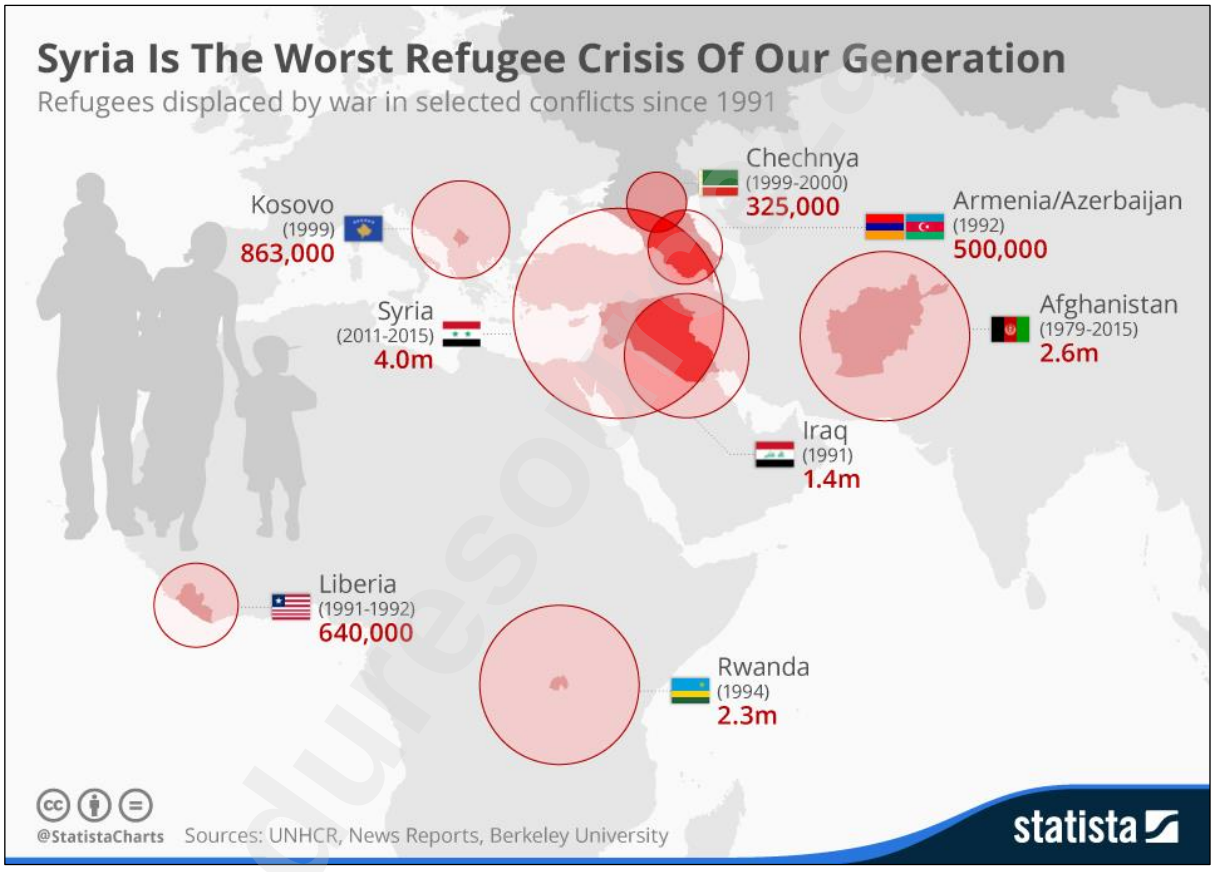
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
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2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Capazorio**	**DURATION**	3 hours
USER NAME	**hsexam23**	**PASSWORD**	**BIURBO**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

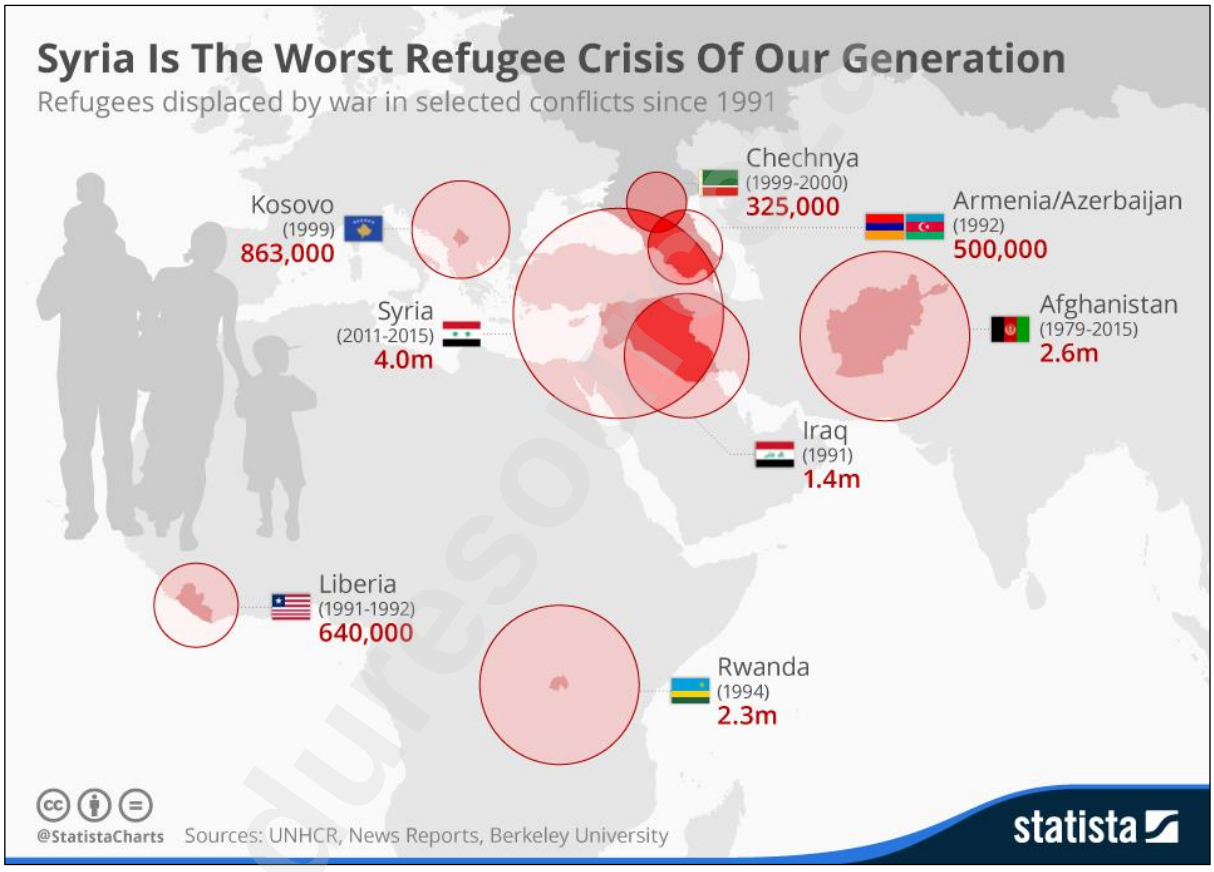
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from Niall McCarthy, July 13th, 2015

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

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The data structures and sample data are as follows:

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Continent	Short Text

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Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

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1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

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- Health
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The data for the organisations is stored in the file **partners.txt** in the following format.

```
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Data:

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CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

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```
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Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Cheng**	**DURATION**	3 hours
USER NAME	**hsexam24**	**PASSWORD**	**HAGNNQ**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

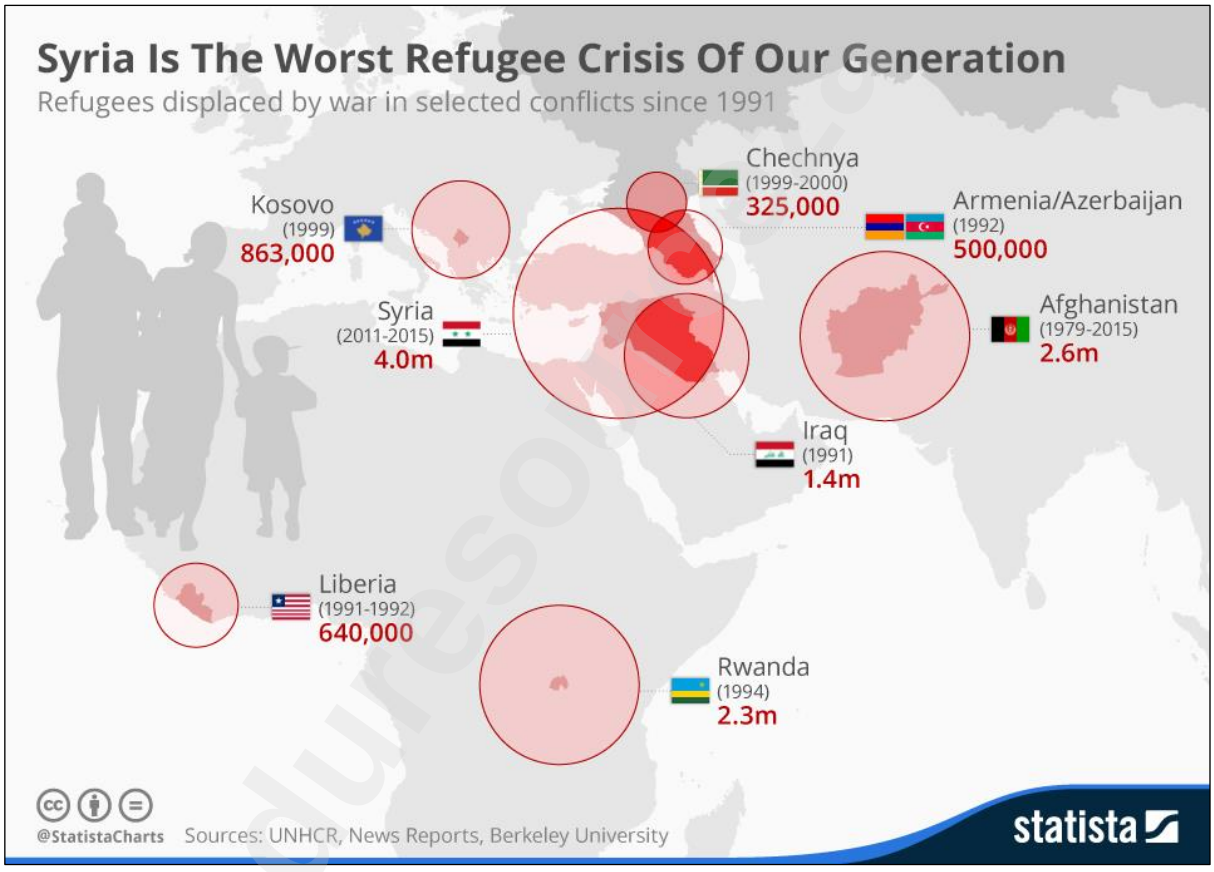
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
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- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
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2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
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2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
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2015-08-04 00:00:00	Hungary	86254	1598
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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

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CRH 100000
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UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

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- read and extract the data from the text file called donations.txt (4)
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WHO 2500000
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(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Christophers**	**DURATION**	3 hours
USER NAME	**hsexam25**	**PASSWORD**	**AVYBSA**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

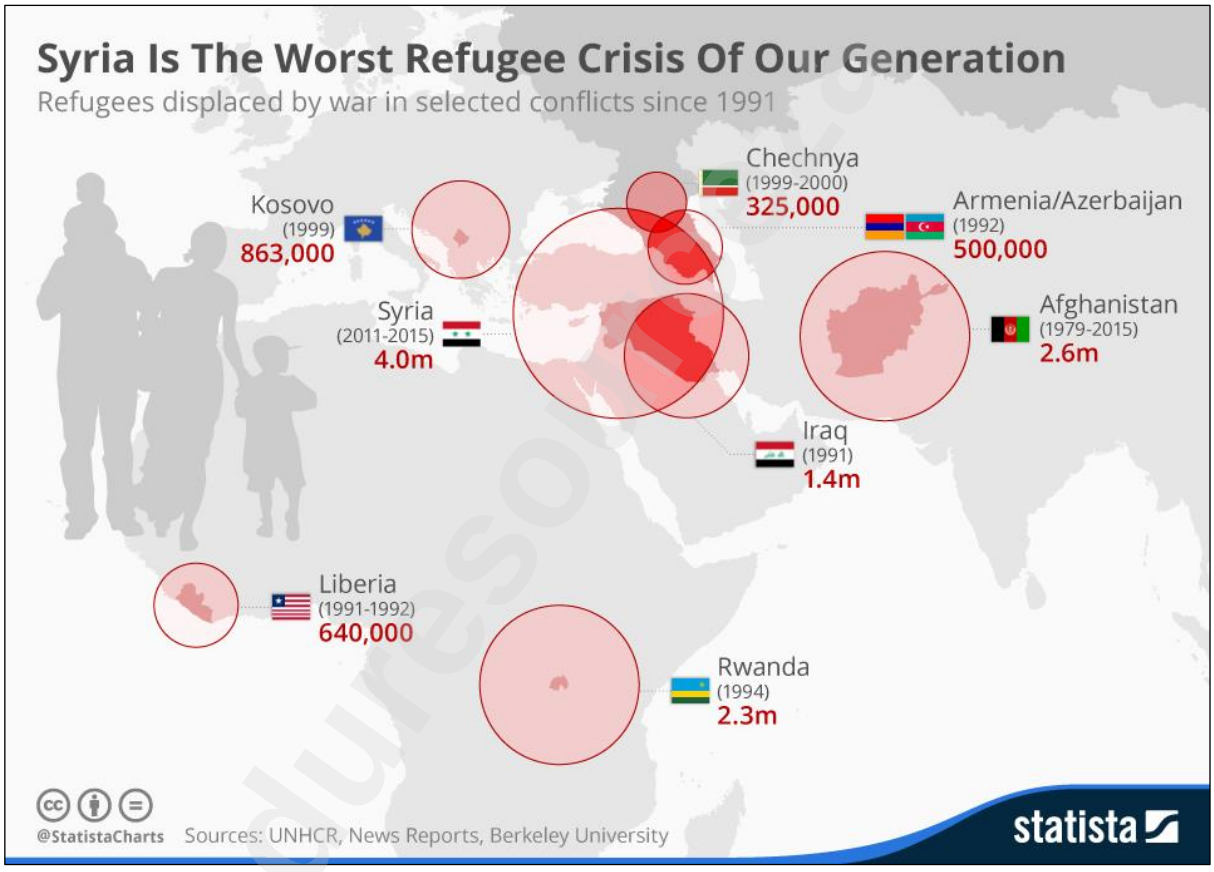
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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

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Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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```
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```
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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
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ACTED#food#http://ww.acted.org#Jordan#
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```
(4)

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3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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(3)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Damhuis**	**DURATION**	3 hours
USER NAME	**hsexam26**	**PASSWORD**	**JYDVBP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

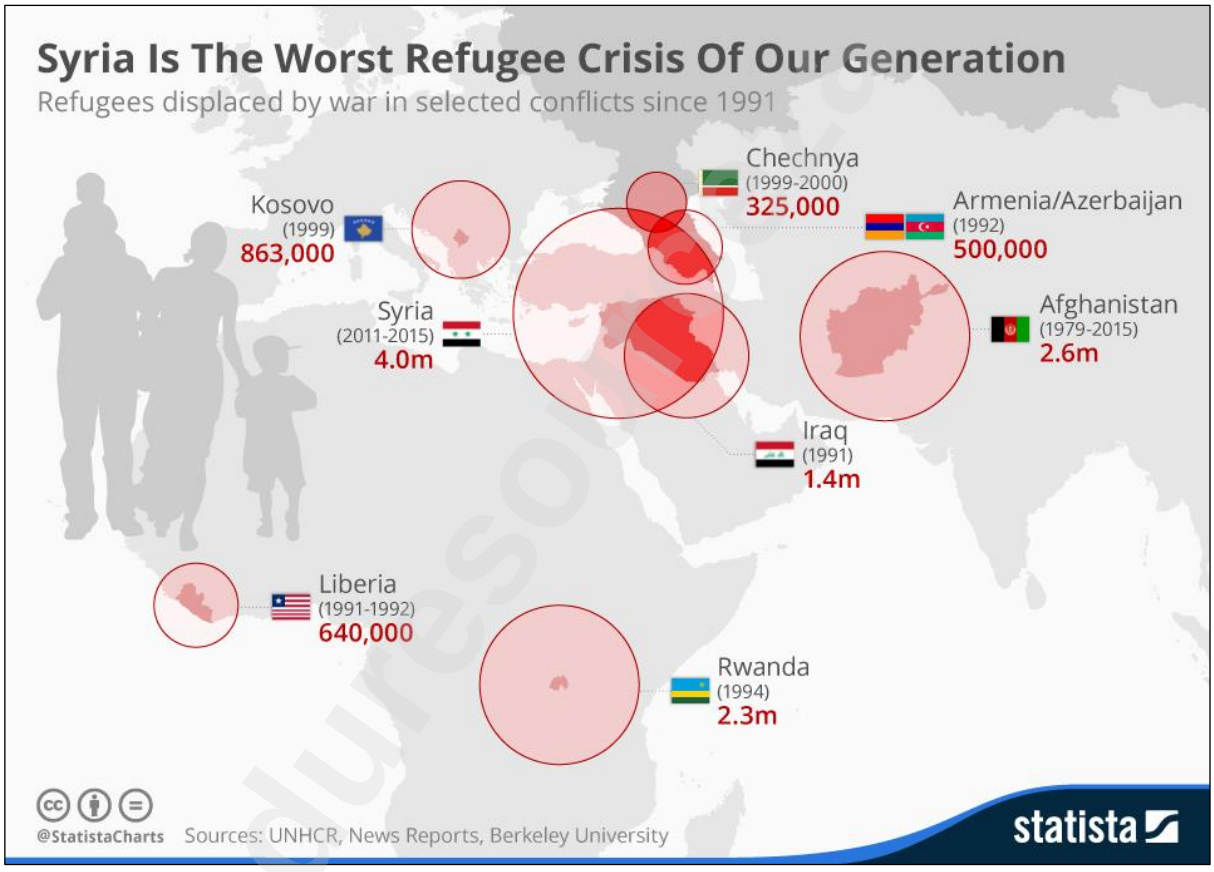
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United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
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2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
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JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
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- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**De Oliveira**	**DURATION**	3 hours
USER NAME	**hsexam27**	**PASSWORD**	**XSFJAW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

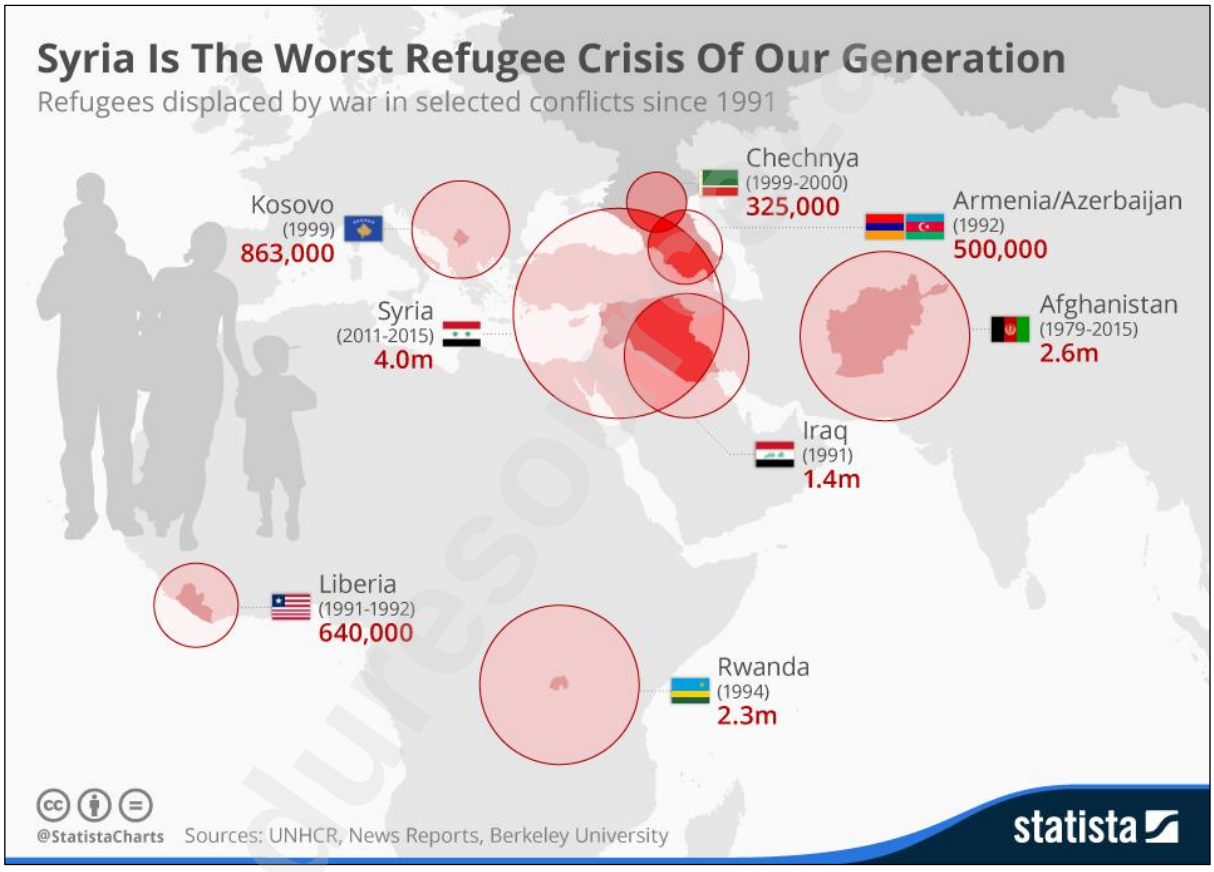
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

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Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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- Education
- Health
- Child protection
- Food
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You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
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UNICEF#child protection#http://www.unicef.org#Egypt#
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```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

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```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

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- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

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```

(3)

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QUESTION 4 **6 MARKS**

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Du Toit**	**DURATION**	3 hours
USER NAME	**hsexam28**	**PASSWORD**	**IAACOG**

COGNITIVE LEVELS

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STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

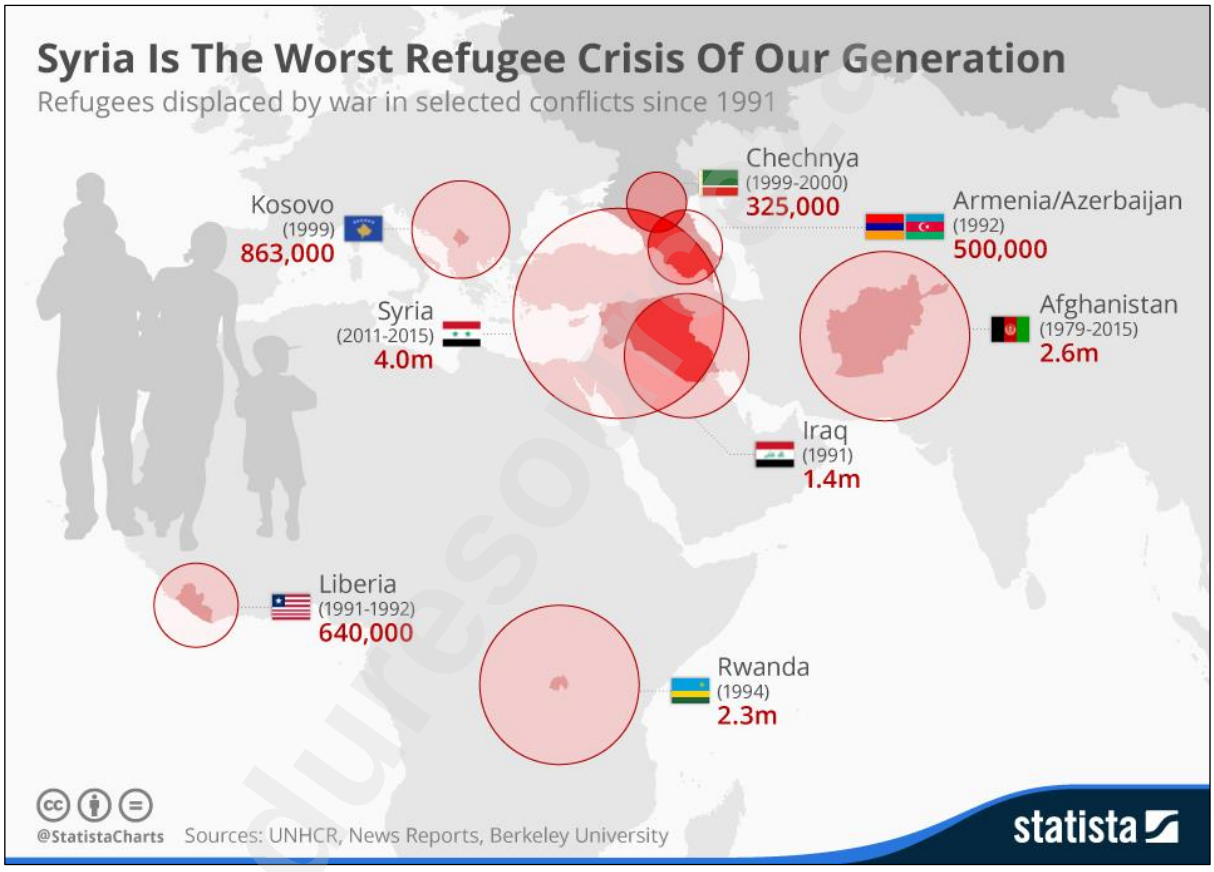
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France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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Questscope#education#http://www.questscope.org#Jordan#
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(4)

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UNHCR 500000
CRH 100000
```

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In this method you will need to:

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- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Flanagan**	**DURATION**	3 hours
USER NAME	**hsexam29**	**PASSWORD**	**HCHFDP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

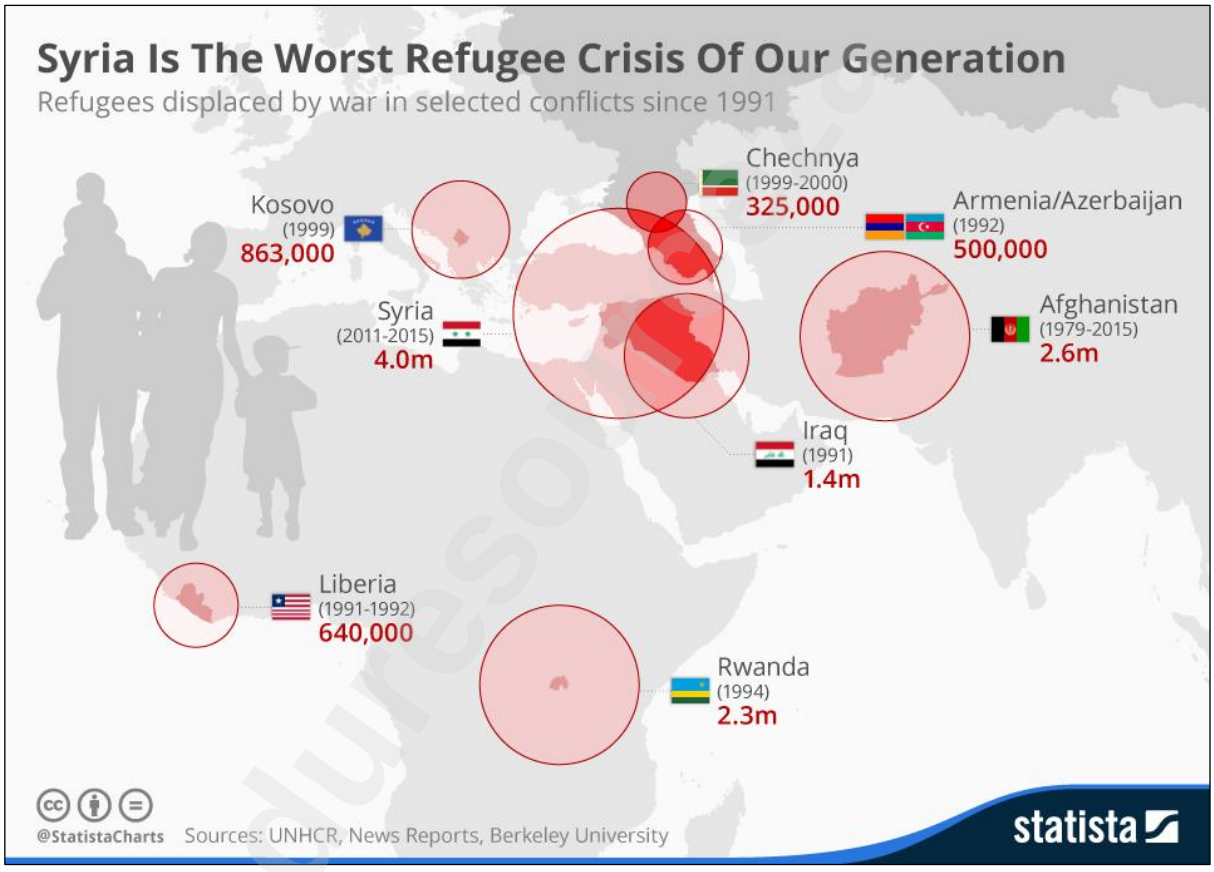
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

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- Applications – the number of applications for asylum received
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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

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3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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WHO 2500000
```

(3)

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4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Gao**	**DURATION**	3 hours
USER NAME	**hsexam30**	**PASSWORD**	**BNYYOX**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

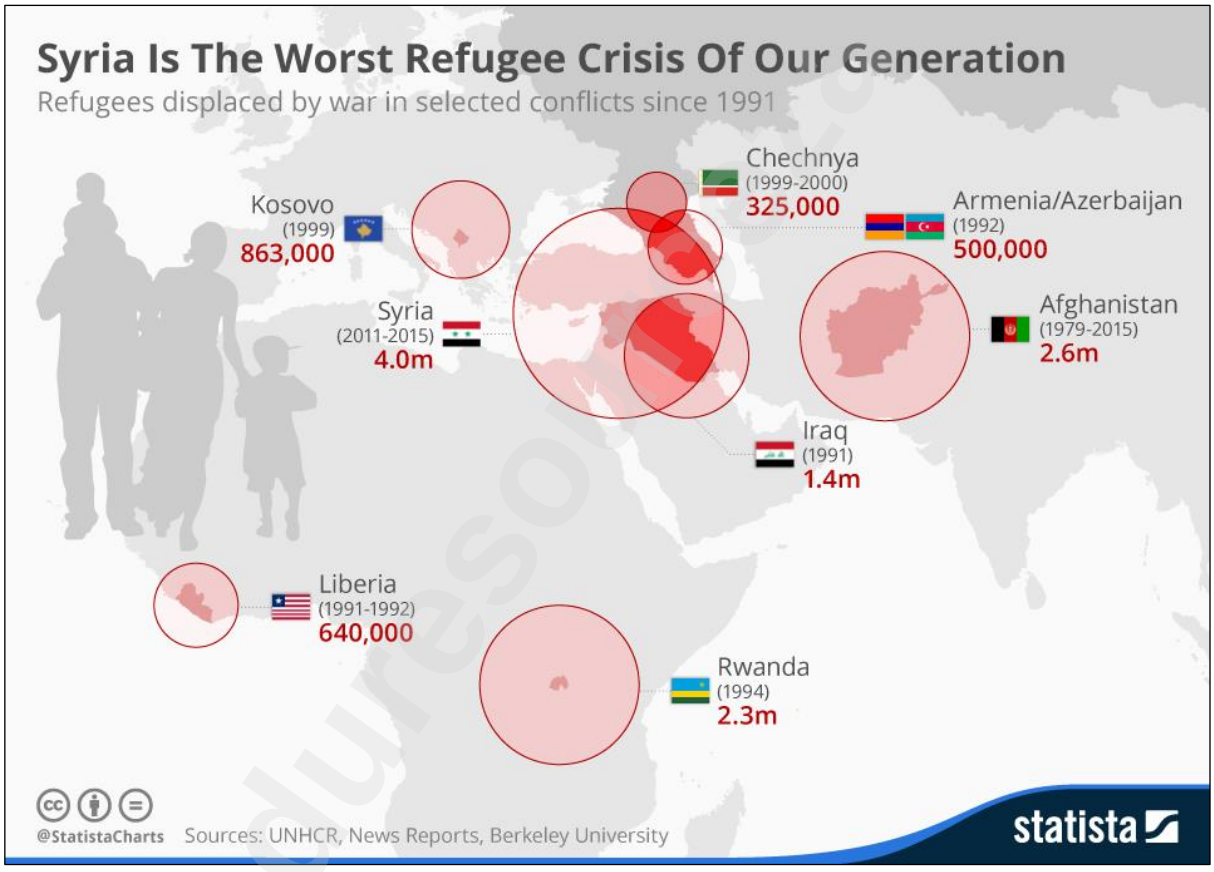
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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

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Continent	Short Text

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Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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Date	Country	Applications	Acceptances
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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- Health
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Data:

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

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- organisation: String - category: String - website : String - location : String
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```
(4)

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+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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```
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CRH 100000
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CARITAS 10000000
UNICEF 3300000
UNHCR 500000
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```

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(3)

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QUESTION 4 **6 MARKS**

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Harris**	**DURATION**	3 hours
USER NAME	**hsexam31**	**PASSWORD**	**NJPGED**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

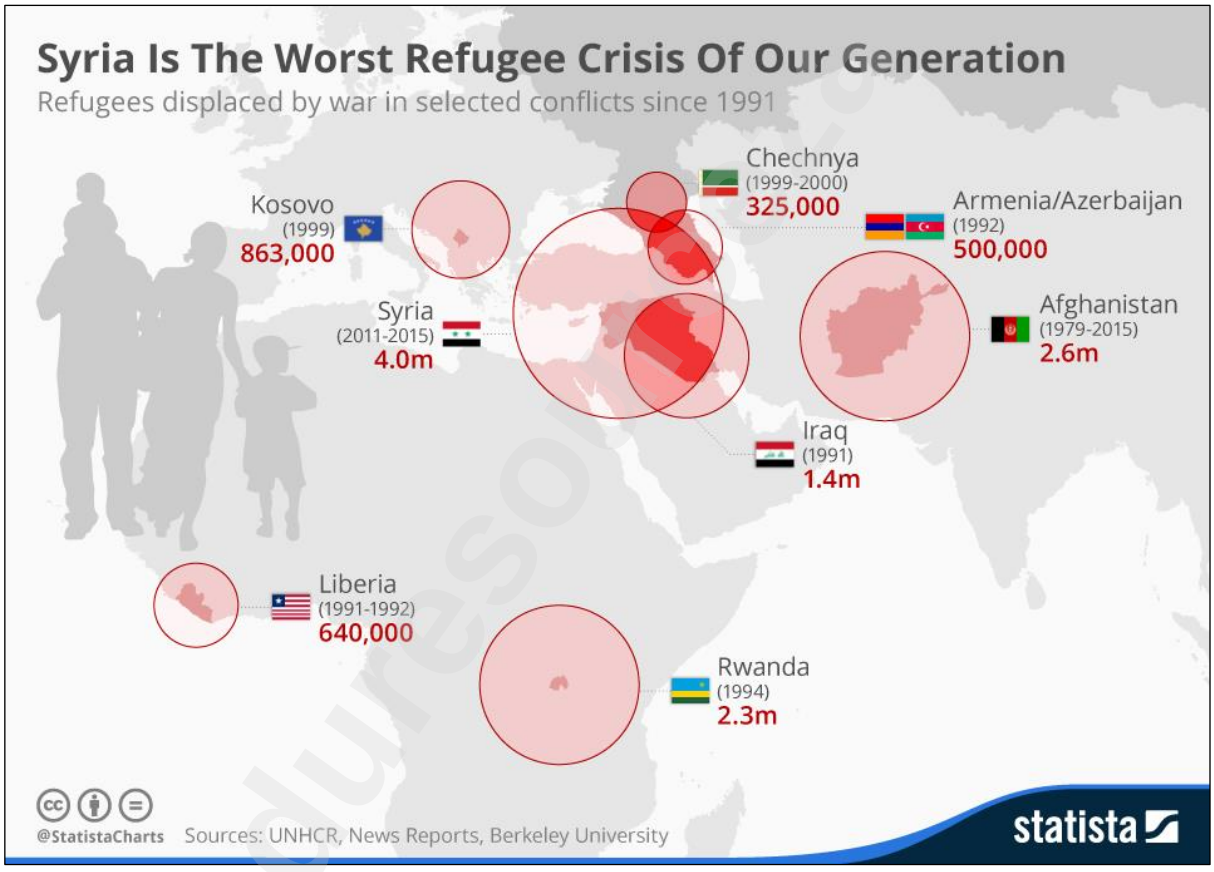
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France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

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1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Ingle**	**DURATION**	3 hours
USER NAME	**hsexam32**	**PASSWORD**	**KMKECA**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

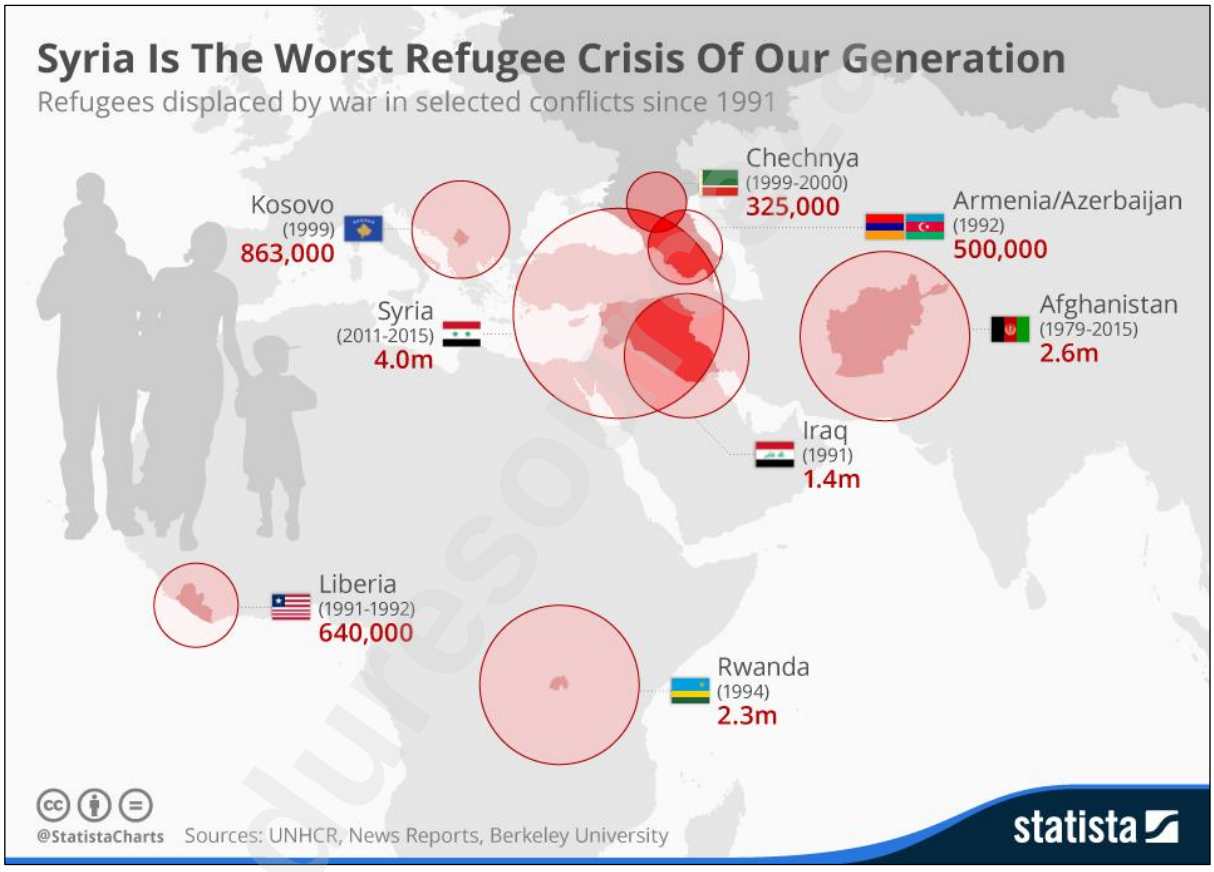
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

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In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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```
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CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Jiang**	**DURATION**	3 hours
USER NAME	**hsexam33**	**PASSWORD**	**OMPYWW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

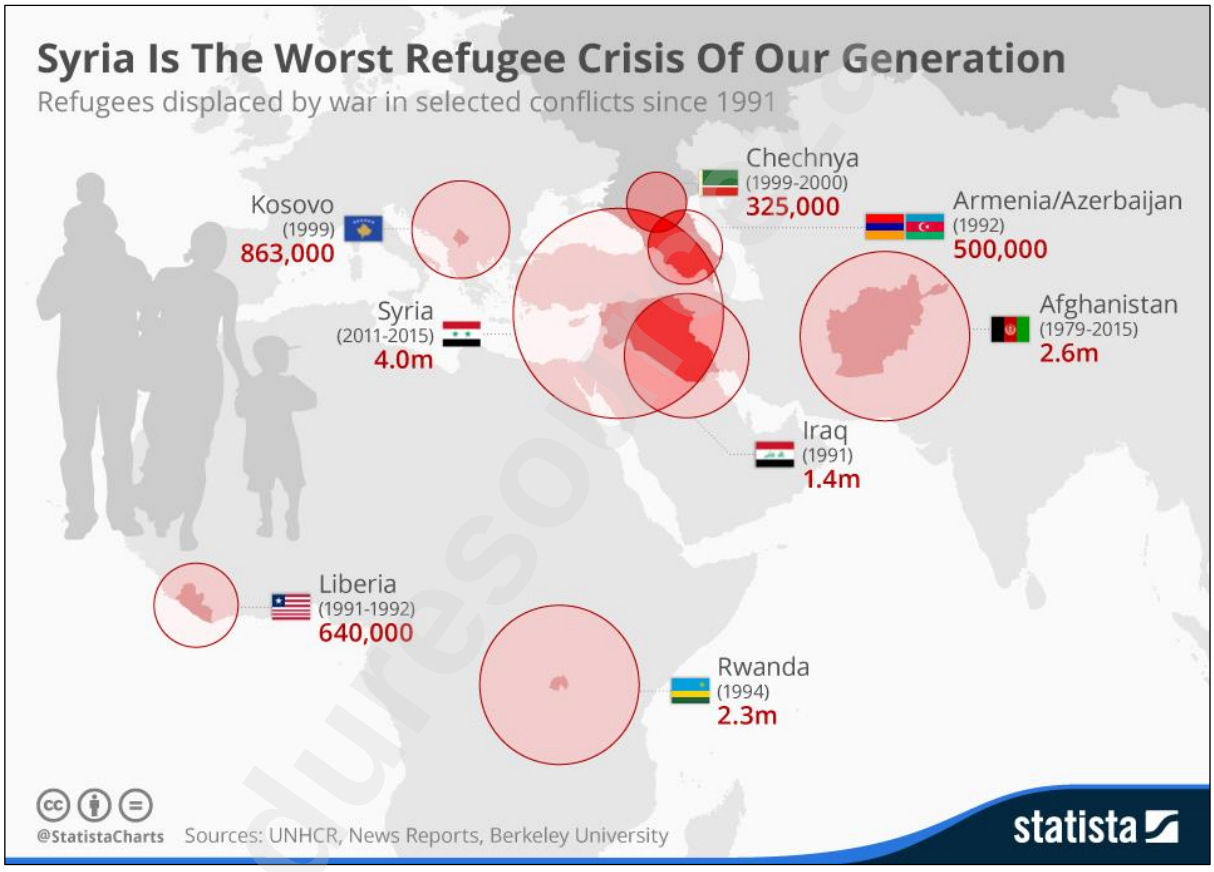
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from Niall McCarthy, July 13th, 2015

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

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The data structures and sample data are as follows:

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Continent	Short Text

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Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-04-30 00:00:00	Sweden	71470	29210
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2015-05-20 00:00:00	Egypt	132000	99550
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2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

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Data:

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

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- organisation: String - category: String - website : String - location : String
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2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

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```
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Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

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3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Liu**	**DURATION**	3 hours
USER NAME	**hsexam34**	**PASSWORD**	**GAPDNW**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

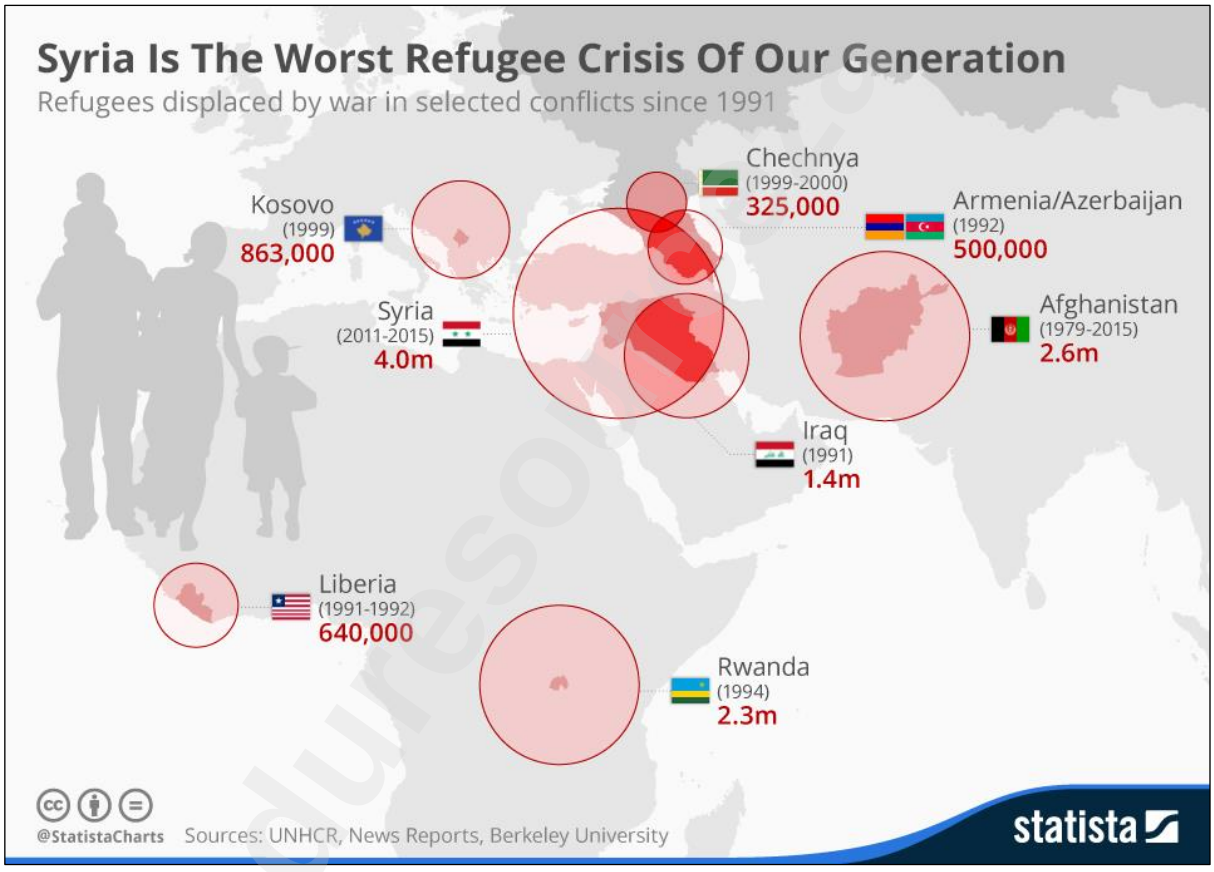
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

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For each country the following statistics are saved:

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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

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Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
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2015-01-23 00:00:00	France	119820	17505
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2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

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3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Maloka**	**DURATION**	3 hours
USER NAME	**hsexam35**	**PASSWORD**	**GVINDU**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

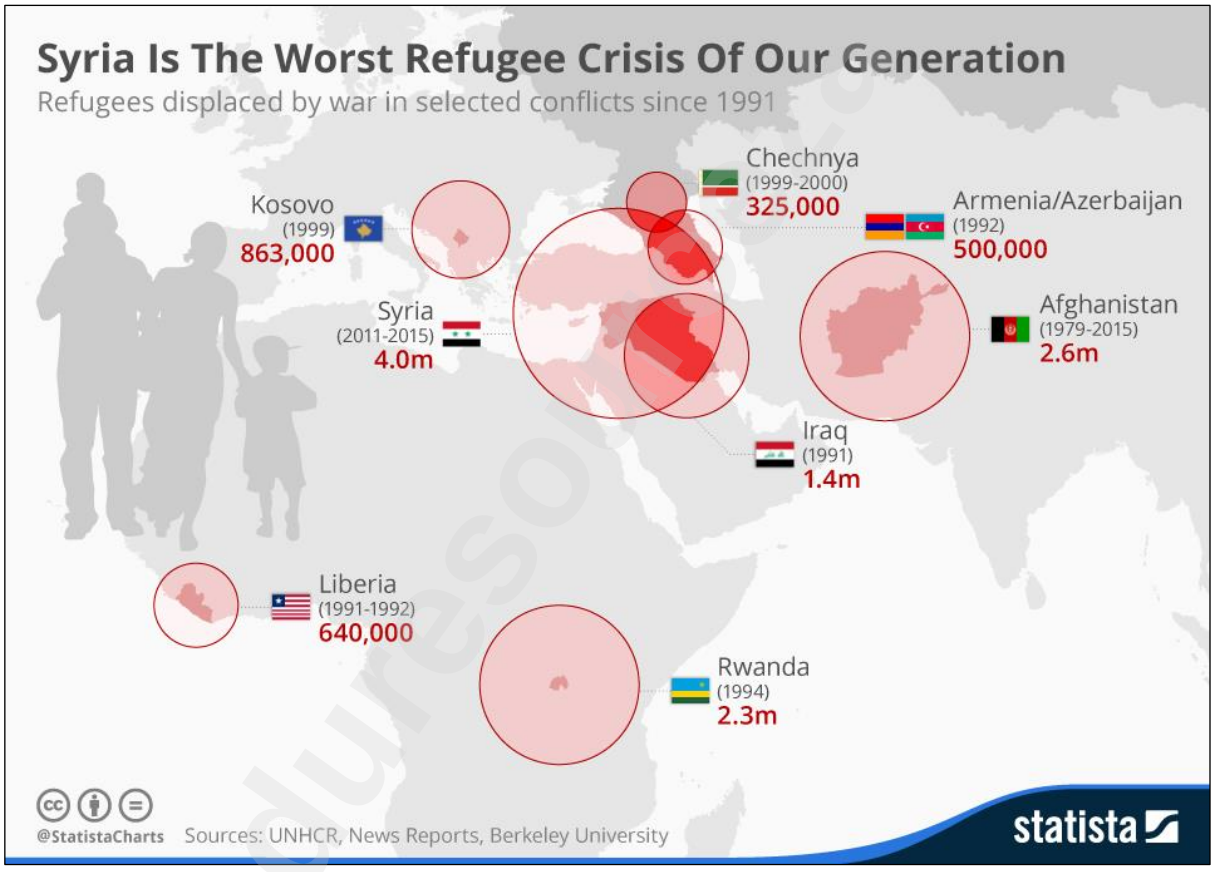
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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
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(4)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**O'Reilly**	**DURATION**	3 hours
USER NAME	**hsexam36**	**PASSWORD**	**NJBAWU**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
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SECTION A: SQL 40 MARKS

SCENARIO

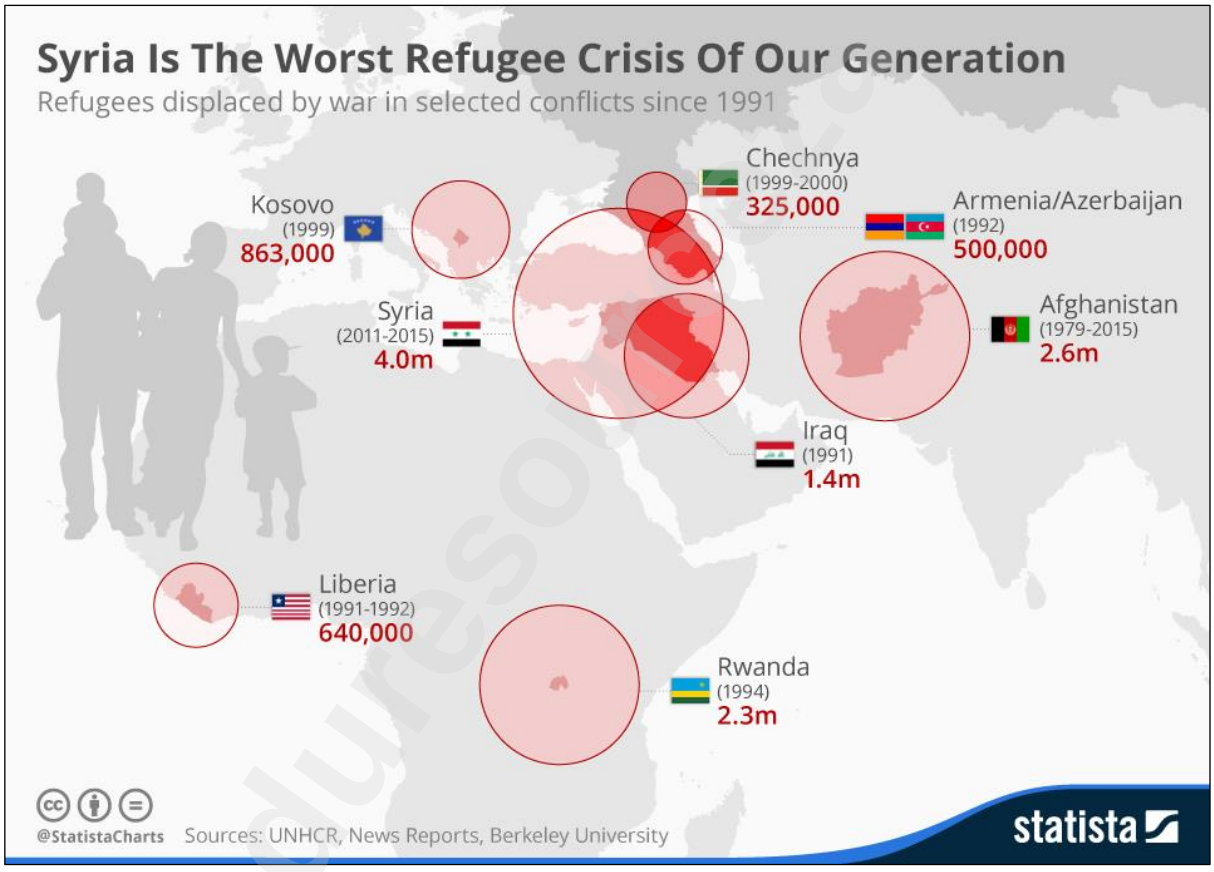
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SECTION B OOP 80 MARKS

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Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Stanley**	**DURATION**	3 hours
USER NAME	**hsexam37**	**PASSWORD**	**KLAGXL**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

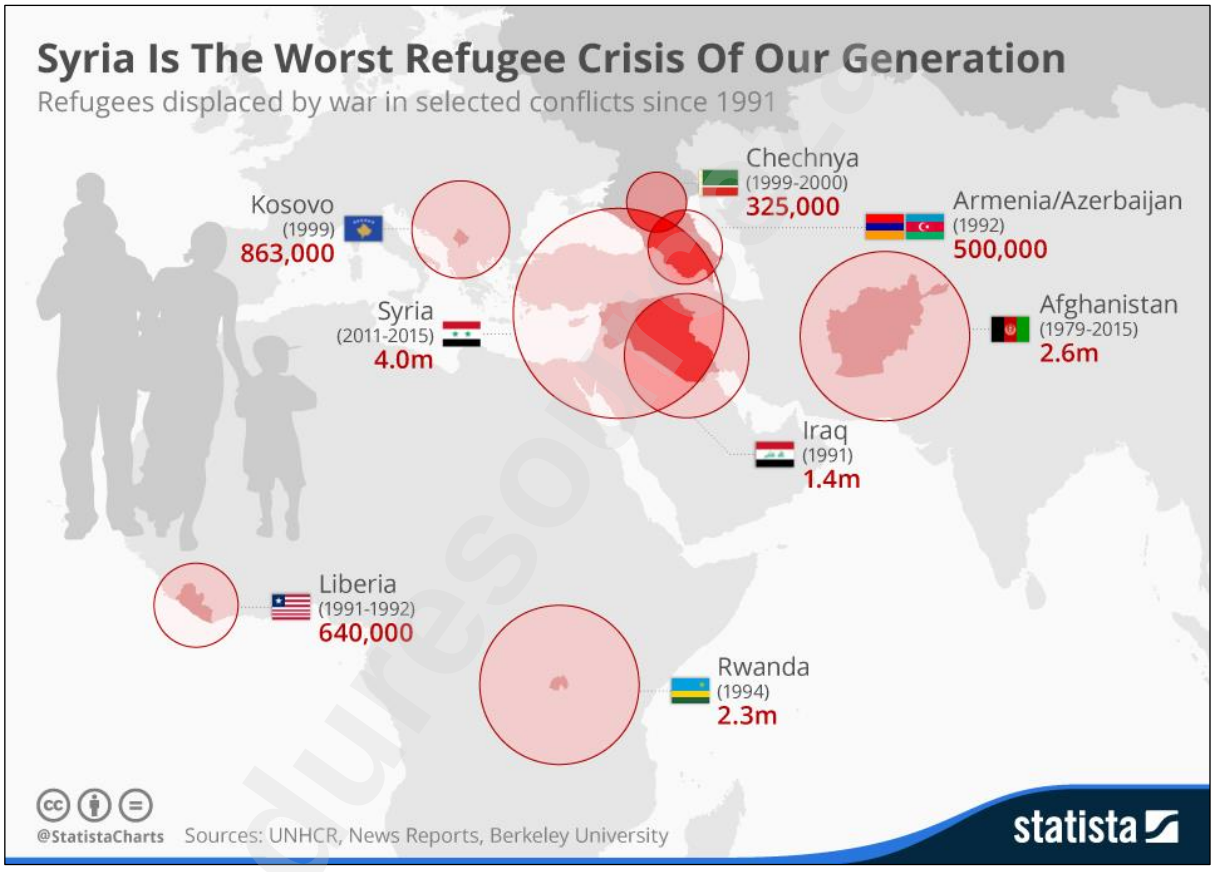
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
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Donations
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WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Tonini**	**DURATION**	3 hours
USER NAME	**hsexam38**	**PASSWORD**	**HVPFVQ**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

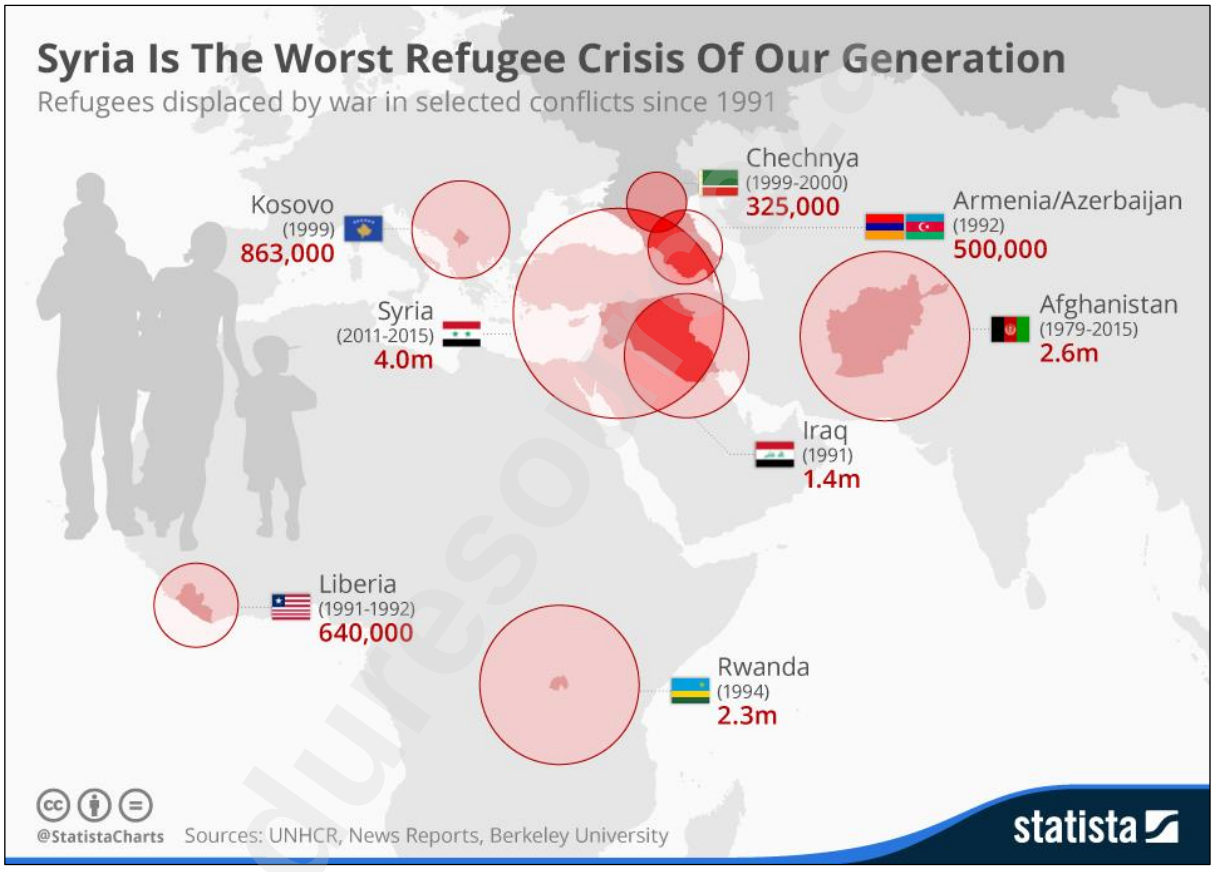
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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The data structures and sample data are as follows:

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Continent	Short Text

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Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
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2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
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You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

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Data:

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CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

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```
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Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

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3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Visentin**	**DURATION**	3 hours
USER NAME	**hsexam39**	**PASSWORD**	**PAFMLP**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

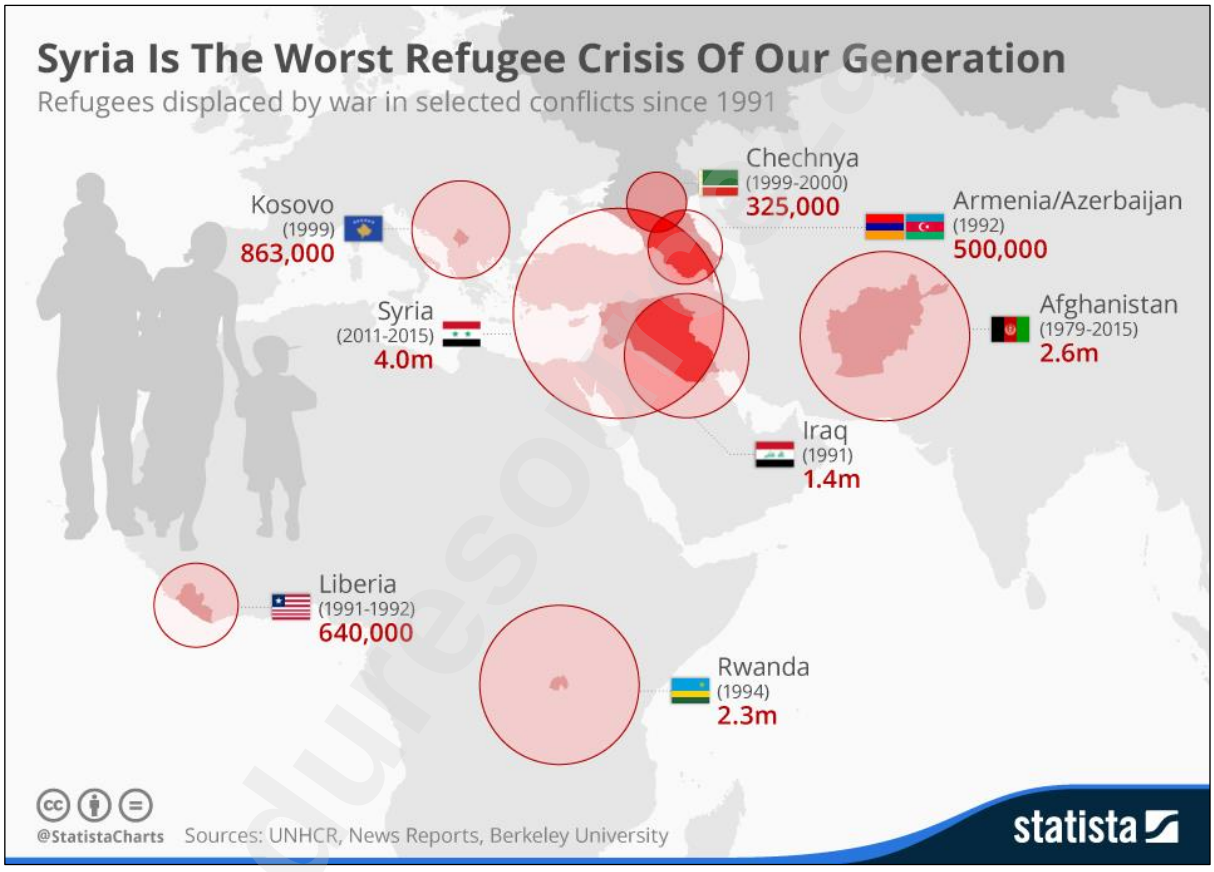
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

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This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

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The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
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1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

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1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

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1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

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CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

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3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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WHO 2000000
CRH 1000000
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WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
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WFP 200000
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UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME	**Wang**	**DURATION**	3 hours
USER NAME	**hsexam40**	**PASSWORD**	**XLRXYY**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

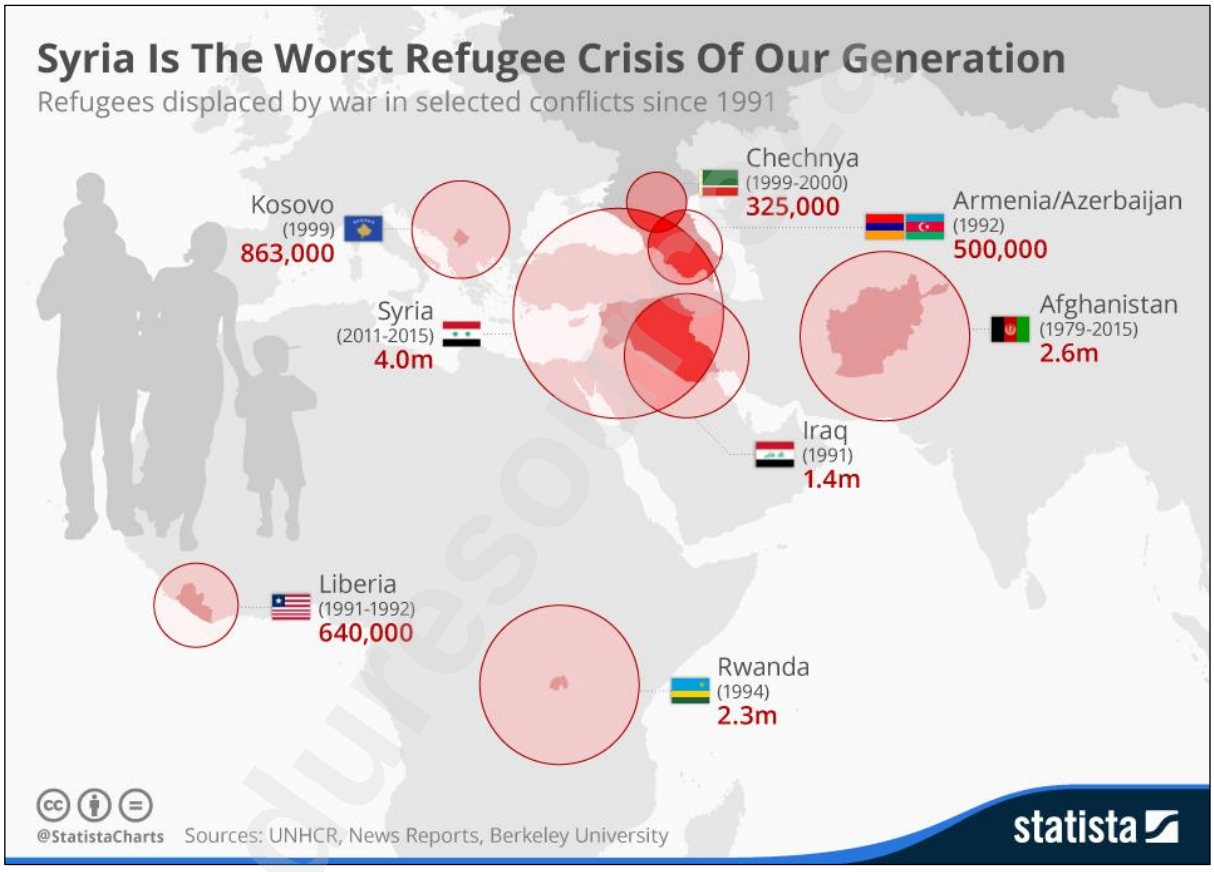
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SECTION B OOP 80 MARKS

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Questscope#education#http://www.questscope.org#Jordan#
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(3)

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QUESTION 4 **6 MARKS**

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EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
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STUDENT'S RESULT COMMENT	
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SECTION A: SQL 40 MARKS

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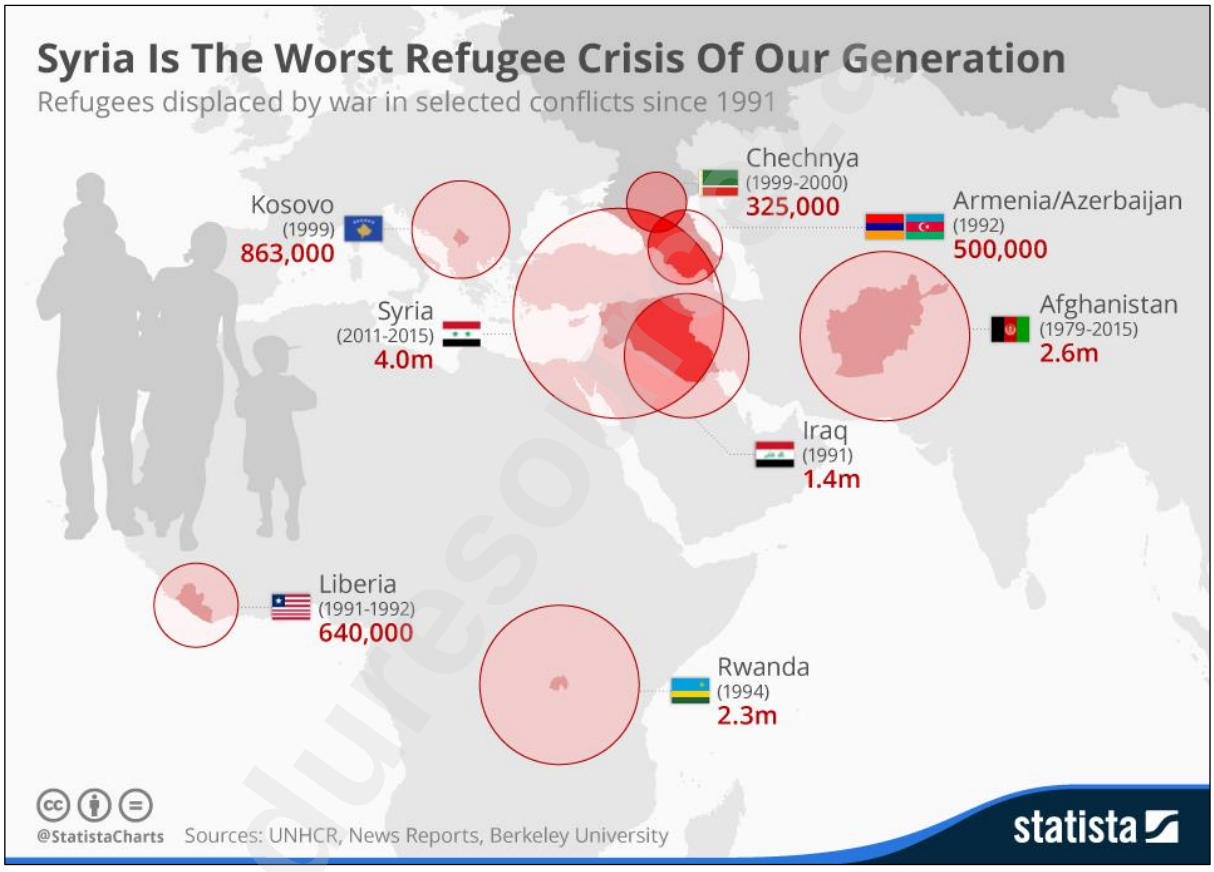
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2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

3.1 Code an array class called **PartnersArray** which has instance field **partArr** to store an array of Partners with maximum size of 100, and **size** to store the number of elements in the array. These must be of an appropriate type, and not be accessible outside of the class. (4)

3.2 Code a constructor that will read the data from the text file "Partners.txt" and instantiate elements in the array. (10)

3.3 Code a **toString()** method to display all the partners information separated by a blank line. (4)

3.4 Code a **sortName()** method to sort the objects in the array in order of organisation names. (7)

3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

3.6 Code a method called **correctWebsites()** that will correct every website for a Partners object. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

```
WHO 2000000
CRH 1000000
ACTED 3000000
UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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SUBJECT	**Information Technology**	**DATE**	November 2015
GRADE	**11**	**MARKS**	120
EXAMINER	Mrs Nocton Smith, Mrs Kench and Mr Gill	**MODERATOR**	Mrs Gill
NAME		**DURATION**	3 hours
USER NAME	**hsexam42**	**PASSWORD**	**HBEHSO**

COGNITIVE LEVELS

LOW ORDER	31 %	**MIDDLE ORDER**	39 %	**HIGH ORDER**	30 %

STUDENT'S RESULT COMMENT	
TEACHER'S SIGNATURE	
PARENT'S SIGNATURE	

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SECTION A: SQL 40 MARKS

SCENARIO

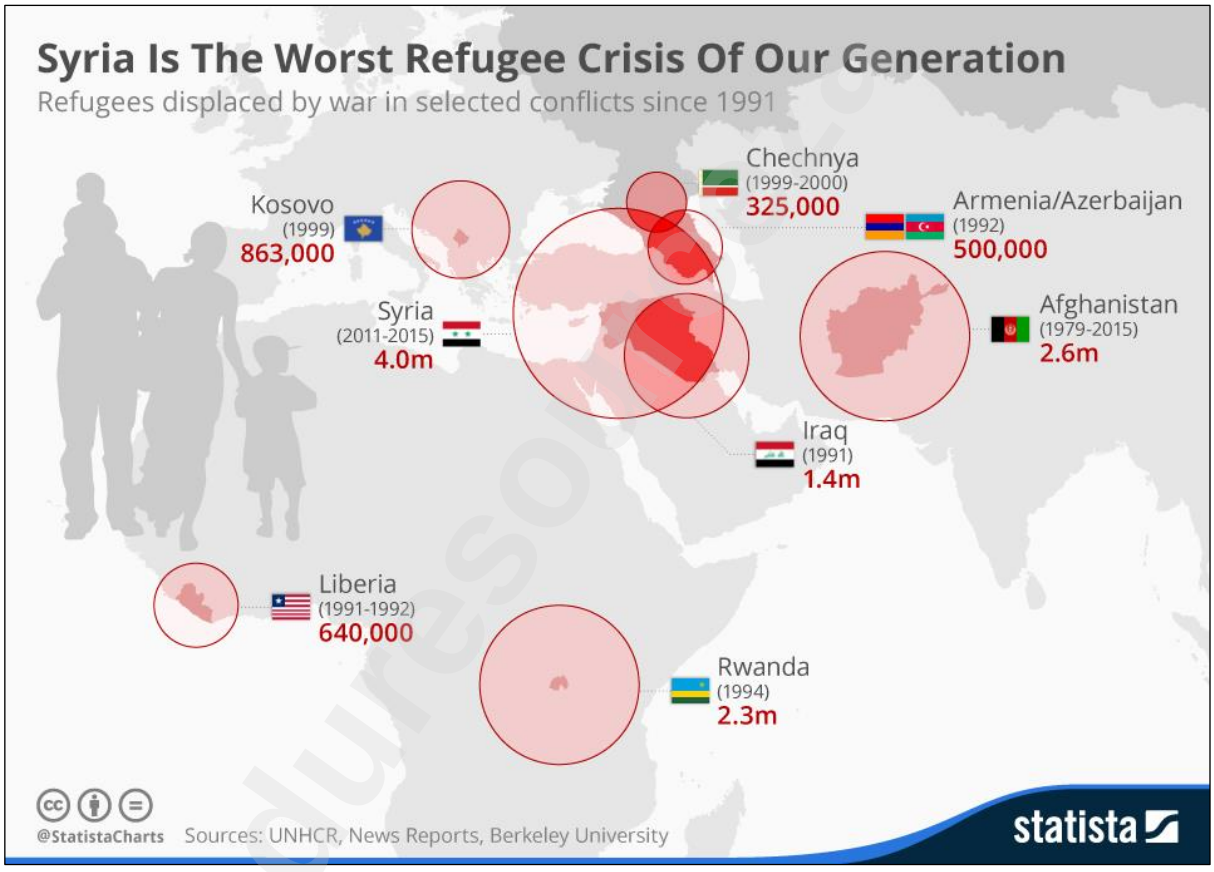
Syria Is The Worst Refugee Crisis Of Our Generation

from Niall McCarthy, July 13th, 2015

Last week, the United Nations reported that the number of people fleeing the war in Syria had surpassed 4 million, making it the worst refugee crisis of our generation. The sheer scale of the Syrian exodus becomes evident through a comparison with several other conflicts that have taken place since 1991.

Even though the chart below focuses on selected conflicts since 1991, Afghanistan has been in turmoil far longer than that. Since the Soviet invasion in 1979, an estimated 2.6 million Afghans have been forced to flee their homeland while the genocide in Rwanda resulted in 2.3 million people being displaced.

This chart shows refugees displaced by war in selected conflicts since 1991.



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QUESTION 1

Examine the tables and then create SQL statements to solve the following queries.

The database **Asylum.accdb,** has been created to track the Syrian refugees applications for asylum in the neighbouring countries.

For each country the following statistics are saved:

- Applications – the number of applications for asylum received
- Decisions – the number of applications waiting on a decision
- Acceptances – the number of applications that have been accepted by the country.

The data structures and sample data are as follows:

tblCountries

Field Name	Data Type
Country	Short Text
Continent	Short Text

Country	Continent
Germany	Europe
Greece	Europe
Hungary	Europe
Sweden	Europe
Italy	Europe
France	Europe
United Kingdom	Europe
Croatia	Europe
United States of America	North America
Canada	North America
Turkey	Europe
Lebanon	Asia
Jordan	Asia
Egypt	Africa

tblStatistics

Field Name	Data Type
Date	Date/Time
Country	Short Text
Applications	Number
Acceptances	Number

Date	Country	Applications	Acceptances
2015-01-20 00:00:00	Germany	256890	75255
2015-01-23 00:00:00	France	119820	17505
2015-02-02 00:00:00	United Kingdom	31695	14410
2015-03-13 00:00:00	Greece	9200	3340
2015-04-12 00:00:00	Italy	69320	22605
2015-04-30 00:00:00	Sweden	71470	29210
2015-05-01 00:00:00	Hungary	101795	525
2015-05-20 00:00:00	Egypt	132000	99550
2015-06-09 00:00:00	Lebanon	110000	99978
2015-06-16 00:00:00	Germany	230995	14560
2015-07-12 00:00:00	United Kingdom	12350	0
2015-07-17 00:00:00	Greece	10000	50
2015-08-02 00:00:00	Lebanon	504870	32598
2015-08-04 00:00:00	Hungary	86254	1598
2015-08-15 00:00:00	Hungary	789541	987

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Copy your queries into the word document **Answer Sheet.docx** which is located in your exam folder. Don't forget to add your name!

1.1 Provide a list of all continents and countries, sorted alphabetically by country within continent. (3)

1.2 Canada has removed their support of the program. Delete the record for Canada from tblCountries. (3)

1.3 Insert the country Norway in the continent of Europe into tblCountries. (3)

1.4 Increase the number of acceptances for all occurrences of Germany and France by 500. (5)

1.5 Generate a 5 character code for each country in Europe. Use the first two letters of the country and the last three letters of the country. (5)

1.6 Display the total number of acceptances for each country. Display both the country name and the total amount. (5)

1.7 List all the records that have data for the month of August and have more than 100 000 applications in the table tblStatistics. (5)

1.8 List the top 5 countries with the most rejections in order of most rejections to least. Display the country name and the number of rejections.

Note rejections = applications – acceptances. (5)

1.9 Determine the average number of acceptances for each country. Display only the countries with an average of more than 10 000 acceptances. (6)

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SECTION B OOP 80 MARKS

QUESTION 23 MARKS

There are a number of relief organisations partnering with the refugee centres to provide services in the various locations. The services offered fall into the following categories:

- Education
- Health
- Child protection
- Food
- Shelter

You need to create an application to manage the information about the partner organisations.

The data for the organisations is stored in the file **partners.txt** in the following format.

```
name#category#website#location#
```

Data:

```
UNHCR#shelter#http://www.unhcr.org/#Turkey#
WHO#health#http://www.who.tk/#Turkey#
WFP#food#http://www.wfp.org/#Turkey#
CARITAS#education#http://www.wfp.org/#Egypt#
CRH#education#http://ww.crh.org/#Egypt#
UNICEF#child protection#http://www.unicef.org#Egypt#
Questscope#education#http://www.questscope.org#Jordan#
Medair#health#http://www.MEDAIR.org#Jordan#
JHAS#health#http://www.jordanhealthaid.jo/#Jordan#
ACTED#food#http://ww.acted.org#Jordan#
```

You are provided with the following class structure:

Partners
- organisation: String - category: String - website : String - location : String
+ Partners(org: String, cat: String, web: String, loc: String) + getOrganisation(): String + getCategory(): String + getWebsite():String + void correctWebsite() + toString() : String

2.1 Create a class called **Partners** with fields to store the organisation, category, website and location. Declare these fields with appropriate types and ensure that these fields are not accessible outside the package. (3)

2.2 Code a constructor which will accept values for the organisation, category, website and location. (3)

2.3 Code the accessor methods listed in the class table. (3)

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2.4 Code a method called **correctWebsite** to correct the website of an organisation according to the following rules:

- All websites must end with ".org". Replace any ending such as ".tk" with ".org".
- All websites must start with "www". Change any websites that start with "ww" to start with "www".
- The name of the organisation must be changed to be the same as the name of the website. For example JHAS must be changed, as the website is named jordanhealthaid. Change the organisation name to be jordanhealthaid instead of JHAS. (10)

2.5 Code a toString method to display the organisation, category, website and location. Display the details of the organisation each on a new line. For example:

```
Organisation : UNHCR
Category : shelter
Website : http://www.unhcr.org/
Country : Turkey
```
(4)

QUESTION 3 **38 MARKS**

You are provided with the following class table, for your array class:

PartnersArray
- partArr: Array of Partners objects - size: integer
+ PartnersArray() + toString() : String + void sortName() + search(category : String) : String + void correctWebsites() + void checkPartners()

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3.5 Code a **search(String category)** method to find all the partners for a given category (e.g. all the health organisations). The method must return the organisation name, together with the website separated by a tab. Each organisation must start on a new line. (5)

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3.7 Each of the partner organisation have made donations toward the refugees. Some organisations have made more than one donation. The donations are recorded in the text file called **donations.txt**. The file lists the name of the organisation followed by the amount separated by a space.

Note that some organisations have made more than one donation.

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UNHCR 100000
WFP 200000
WHO 500000
CRH 100000
CRH 100000
UNHCR 2000000
CARITAS 10000000
UNICEF 3300000
UNHCR 500000
CRH 100000
```

3.7.1 Add an integer field called **total** to the **Partners** class and set its value to 0. (2)

3.7.2 Add an accessor method to access the **total** field. (1)

3.7.3 Add a method called **updateTotal(int amount)** to add the parameter amount to the **total** field. (2)

3.7.4 Add a typed method called **calcDonations** in the **PartnersArray** class. The method will return a string with the names of the organisation and their total donations. If an organisation has not made a donation then their details must not be returned in the string.

In this method you will need to:

- read and extract the data from the text file called donations.txt (4)
- code a search to find the corresponding organisation in the **partArr** array. (4)
- update the organisation's total with the organisation's donation using the method you created in 3.7.3 (1)
- create a string with the names of the organisation and their total amount listed one below the other and the heading "Donations". Eliminate any organisations that have not made any donations. Your output should appear as below:

```
Donations
ACTED 3000000
WFP 200000
CRH 1300000
UNHCR 2600000
UNICEF 3300000
WHO 2500000
```

(3)

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QUESTION 4 **6 MARKS**

4.1 Create a class called **PartnerManager** to instantiate a **PartnersArray** object. (2)

4.2 Write code to sort and display the array of partners. (1)

4.3 Write code to correct the websites. (1)

4.4 Write code to call the **calcDonations** method and display the result. (1)

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