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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
CLASS			

COGNITIVE LEVELS			
LOW ORDER	36 %	MIDDLE ORDER	42 %
		HIGH ORDER	23 %

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

SECTION A: SQL

QUESTION 1

40 MARKS
40 MARKS

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

```
SELECT Continent, Country v or *
FROM tblCountries v
ORDER BY Continent, Country; v
```

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

```
DELETE v
FROM tblCountries v
WHERE Country = "Canada"; v
```

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

```
INSERT INTO tblCountries ( Country, Continent) v or INSERT INTO tblCountries
VALUES ("Norway", "Europe");v
```

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

```
UPDATE tblStatistics v
SET Acceptances = Acceptances + 500v
WHERE Country = 'FRANCE'v ORv Country = 'Germany'; v
```

- 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)

```
select concatv (left(country, 2), vright(country,3)) v as code
from tblcountriesv
where Continent = 'Europe'v
```

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

```
SELECT country, v sum(Acceptances) vv
FROM tblStatisticsv
GROUP BY country; v
```

- 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)

```
SELECT *
FROM tblStatisticsv
WHERE month(date) v = 8v AND vapplications > 100000; v
```

- 1.8 List the countries that have the 5 top most rejections. (5)
Note rejections = applications – acceptances.

```
SELECT country, applications–acceptances as rejectionsv
FROM tblStatisticsv
ORDER BY rejectionsv DESC v
LIMIT 5v
```

- 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)

```
SELECT country, avg(acceptances) v as aveAcc
FROM tblStatisticsv
GROUP BY countryvv
HAVING aveAcc > 10000; vv
```

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QUESTION 2

24 MARKS

```
public class Partners {
```

```
//2.1 [3]
```

```
    private ✓ String ✓ org; ✓
    private String category;
    private String website;
    private String location;
    private int ✓ total = 0; ✓ //3.7.1 [2]
```

```
//2.2 [3]
```

```
    public Partners(String o, String c, String w, String l) ✓ {
        org = o;
        category = c;
        website = w;
        location = l; ✓✓ for assignment
    }
```

```
//2.3 [3]
```

```
    public String getOrganisation() {
        return org; ✓
    }
```

```
    public String getCategory() {
        return category; ✓
    }
```

```
    public String getWebsite() {
        return website; ✓
    }
```

```
//2.4 [10]
```

```
    public void correctWebsite() ✓ {
        String newWeb = website.substring(7); ✓
        String[] parts = website.split("\\."); ✓
        String www = "www"; ✓
        String newOrg = "org"; ✓
        if (!parts[1].equalsIgnoreCase(org)) { ✓
            org = parts[1].toUpperCase(); ✓
        }
        website = www + "." ✓ + parts[1] + "." ✓ + newOrg; ✓
    }
```

```
//2.5 [4]
```

```
    public String toString() { ✓
```

```
        return ✓ "Organisation : " + org + "\n" + "Category : " + category + "\n"
```

+ "Website : " + website + "\n" + "Location : " + location; ✓✓ for correct layout

```

}
//3.7.2 [1]
public int getTotal() {
    return total; ✓
}
//3.7.3 [2]
public void updateTotal(int a) ✓
{
    total += a; ✓
}
}

```

QUESTION 3**38 MARKS**

```

public class PartnersArray
{
//3.1 [4]
    private ✓Partners [] partArr✓ = new Partners [ 100 ]; ✓
    private int size = 0; ✓

//3.2 [10]
    public PartnersArray()✓throws FileNotFoundException
    {
        Scanner sc = new Scanner ( new File ("partners.txt")); ✓
        while (sc.hasNext())✓
        {
            String line = sc.nextLine(); ✓
            Scanner sc2 = new Scanner (line).useDelimiter("#");✓
            String org = sc2.next();✓✓
            String div = sc2.next();
            String web = sc2.next();
            String loc = sc2.next();
            partArr[size] ✓= new Partners(org, div, web, loc); ✓
            size++;✓
        }
    }
//3.3 [4]
    public String toString()✓
    {
        String output="";

        for (int i = 0 ; i < size; i ++ )✓
        {
            output = output + ✓partArr[i] + "\n\n";
        }
        return output; ✓
    }
//3.4 [7]
    public void sort()

```

```

{
    for ( int i = 0 ; i < size-1 ; i ++ ) ✓✓
    {
        int pos = i;
        for (int j = i + 1 ; j < size ; j ++ ) ✓✓
        {
            if (partArr[pos].getOrg().compareToIgnoreCase(partArr[j].getOrg()) > 0) ✓
            {
                pos = j;
            }
        }
        Partners temp = partArr[i]; ✓✓
        partArr[i] = partArr[pos];
        partArr[pos] = temp;
    }
}

```

//3.5 [5]

```

public String search(String cat) ✓
{
    //print name , website for all organisations of a given type....

    String output = "";

    for (int i = 0 ; i < size ; i ++ ) ✓
    {
        if (partArr[i].getCategory().equals(cat)) ✓
        {
            output = output + partArr[i].getOrg() + "\t" + ✓
                partArr[i].getWebsite() + "\n";
        }
    }
    return output; ✓
}

```

//3.6 [5]

```

public void correctWebsites() ✓
{
    for (int i = 0 ; i < size; i ++ ) ✓✓
    {
        partArr[i].correctWebsite(); ✓✓
    }
}

```

//3.7.4 [12]

```

public String ✓calcDonations() {
    String temp = "";
    try {
        Scanner sc = new Scanner(new File("donations.txt")); ✓
        while (sc.hasNext()) { ✓
            String line = sc.nextLine();
            System.out.println(line);
            Scanner sc2 = new Scanner(line).useDelimiter(" "); ✓

```

```

String org = sc2.next();
int amount = sc2.nextInt();✓
int i = 0;
boolean found = false;
while (i < size && found == false) {✓
    if (org.equalsIgnoreCase(partArr[i].getOrg())) {✓
        partArr[i].updateTotal(amount); ✓
        found = true; ✓
    }
    i++;
}

temp = "";
for (i = 0; i < size; i++) {✓
    if (partArr[i].getTotal() != 0) {✓
        temp += partArr[i].getOrg() + " " + partArr[i].getTotal() + "\n";✓
    }
}
}
} catch (FileNotFoundException ex) {
    Logger.getLogger(PartnersArray.class.getName()).log(Level.SEVERE, null, ex);
}
return temp;
}
}
}

```