

Databases - Lab Sheet 2

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Surface Area

What is the largest country by surface area?

```
SELECT Name
FROM Country
ORDER BY SurfaceArea DESC
LIMIT 1;
```

```
+-----+
| Name          |
+-----+
| Russian Federation |
+-----+
1 row in set (0.00 sec)
```

Per-capita GNP

What SQL query will list all countries by increasing GNP per capita?

```
SELECT Name, GNP/Population AS GNPPercap
FROM Country
ORDER BY GNPPercap ASC;
```

```
+-----+-----+
| Name                                | GNPPercap |
+-----+-----+
| Antarctica                          | NULL      |
| French Southern territories         | NULL      |
...
| Bermuda                             | 0.035815  |
| Switzerland                         | 0.036936  |
| Luxembourg                          | 0.037459  |
+-----+-----+
```

Spoken English

In how many countries is English spoken?

```
SELECT DISTINCT CountryCode
FROM CountryLanguage
WHERE Language = 'English';
```

```
+-----+
```

```
| CountryCode |
```

```
+-----+
```

```
| ABW          |
```

```
| AIA          |
```

```
| ANT          |
```

```
| ASM          |
```

```
...
```

```
| ZAF          |
```

```
| ZWE          |
```

```
+-----+
```

```
60 rows in set (0.01 sec)
```

English an official language

In how many countries is English an official language?

```
SELECT DISTINCT CountryCode
FROM CountryLanguage
WHERE Language = 'English' AND isOfficial='T';
```

```
+-----+
```

```
| CountryCode |
```

```
+-----+
```

```
| AIA          |
```

```
| ASM          |
```

```
| ATG          |
```

```
| AUS          |
```

```
| ZAF          |
```

```
| ZWE          |
```

```
+-----+
```

```
44 rows in set (0.00 sec)
```

Names of the French-speaking countries

```
SELECT Name, Language
FROM Country JOIN CountryLanguage
ON Country.Code = CountryLanguage.CountryCode
WHERE Language = 'French' AND isOfficial='T';
```

```
+-----+-----+
| Name                | Language |
+-----+-----+
| Burundi             | French   |
| Belgium             | French   |
| Canada              | French   |
| ...
| Saint Pierre and Miquelon | French   |
| Seychelles          | French   |
| Vanuatu             | French   |
+-----+-----+
```

```
18 rows in set (0.01 sec)
```

All official languages

```
SELECT Name, Language
FROM Country JOIN CountryLanguage
ON Country.Code = CountryLanguage.CountryCode
WHERE isOfficial='T';
```

| Name | Language |
|--------------|----------|
| Aruba | Dutch |
| Afghanistan | Dari |
| ... | |
| South Africa | English |
| South Africa | Xhosa |
| South Africa | Zulu |
| Zimbabwe | English |

```
238 rows in set (0.00 sec)
```

Cities in French speaking countries?

How many cities lie in French speaking countries?

```
SELECT Name
FROM City JOIN CountryLanguage
USING (CountryCode)
WHERE Language = 'French' AND IsOfficial='T';
```

```
+-----+
| Name          |
+-----+
| Antwerpen     |
| Gent          |
| ...           |
| Port-Vila     |
+-----+
127 rows in set (0.02 sec)
```


Cities in their regions

```
SELECT City.Name, Country.Region
FROM City JOIN Country
ON City.CountryCode = Country.Code;
```

```
+-----+-----+
| Name          | Region                               |
+-----+-----+
| Kabul         | Southern and Central Asia          |
...
...
| Jabaliya      | Middle East                         |
| Nablus        | Middle East                         |
| Rafah         | Middle East                         |
+-----+-----+
4079 rows in set (0.00 sec)
```

French-speaking cities outside Western Europe

How many cities lie in French-speaking countries outside Western Europe?

```
SELECT C.Name, Y.Name
FROM City C, Country Y, CountryLanguage L
WHERE C.countryCode = Y.Code
AND Y.code = L.countryCode
AND L.language = 'French'
AND IsOfficial='T'
AND Y.region <> 'Western Europe';
```

```
+-----+-----+
| Name          | Name          |
+-----+-----+
| Bujumbura     | Burundi       |
| Les Abymes    | Guadeloupe    |
...
| Port-Vila    | Vanuatu       |
+-----+-----+
70 rows in set (0.02 sec)
```

Two official languages

How many countries have both English and French as official languages?

```
SELECT L1.countryCode
FROM CountryLanguage L1, CountryLanguage L2
WHERE L1.language = 'French'
AND L1.isOfficial='T'
AND L2.language = 'English'
AND L2.isOfficial='T'
AND L1.countryCode = L2.countryCode;
```

```
+-----+
```

```
| countryCode |
```

```
+-----+
```

```
| CAN        |
```

```
| SYC        |
```

```
| VUT        |
```

```
+-----+
```

```
3 rows in set (0.00 sec)
```