SELECT from WORLD Tutorial

From SQLZOO

name	continent	area	population	gdp
Afghanistan	Asia	652230	25500100	20343000000
Albania	Europe	28748	2831741	12960000000
Algeria	Africa	2381741	37100000	188681000000
Andorra	Europe	468	78115	3712000000
Angola	Africa	1246700	20609294	100990000000
...				

Country Profile

In this tutorial you will use the SELECT command on the table `world`:

1.

Read the notes about this table. Observe the result of running a simple SQL command.

```
SELECT name, continent, population FROM world
```

Submit SQL   Restore default

NoSQL version of SELECT name, continent, population (http://nosqlzoo.net/wiki/FIND_from_WORLD#Q1)

Correct answer

name	continent	population

Afghanistan	Asia	25500100
Albania	Europe	2821977
Algeria	Africa	38700000
Andorra	Europe	76098
Angola	Africa	19183590
Antigua and Barbuda	Caribbean	86295
Argentina	South America	42669500
Armenia	Eurasia	3017400

2.

How to use WHERE to filter records. Show the name for the countries that have a population of at least 200 million. 200 million is 200000000, there are eight zeros.

```
SELECT name FROM world
WHERE population>250000000
```

Submit SQL   Restore default

NoSQL version of SELECT with WHERE (http://nosqlzoo.net /wiki/FIND_from_WORLD#Q2)

result

3.

Give the `name` and the **per capita GDP** for those countries with a `population` of at least 200 million.

HELP:How to calculate per capita GDP

per capita GDP is the GDP divided by the population GDP/population

```
SELECT name, gdp/population FROM world
WHERE population > 200000000
```

Submit SQL   Restore default

Correct answer

name	gdp/population
Brazil	11115.2648
China	6121.7106
India	1504.7931
Indonesia	3482.0205
United States	51032.2945

4.

Show the `name` and `population` in millions for the countries of the `continent` 'South America'. Divide the population by 1000000 to get population in millions.

```
SELECT name, population/1000000 FROM world
WHERE continent = 'South America'
```

Submit SQL   Restore default

Correct answer

name	population/10..
Argentina	42.6695
Bolivia	10.0273
Brazil	202.7940
Chile	17.7730
Colombia	47.6620
Ecuador	15.7742
Guyana	0.7849
Paraguay	6.7834
Peru	30.4751

5.

Show the `name` and `population` for France, Germany, Italy

```
SELECT name, population FROM world
WHERE name IN ('France', 'Germany', 'Italy')
```

Submit SQL   Restore default

Correct answer

name	population
France	65906000
Germany	80716000
Italy	60782668

6.

Show the countries which have a `name` that includes the word 'United'

```
select name from world
where name LIKE '%United%'
```

Correct answer

name
United Arab Emirates
United Kingdom
United States

7.

Two ways to be big: A country is **big** if it has an area of more than 3 million sq km or it has a population of more than 250 million.

Show the countries that are big by area or big by population. Show name, population and area.

```
select name, population, area from world
where area > 3000000 OR population > 250000000
```

Correct answer

name	population	area
Australia	23545500	7692024
Brazil	202794000	8515767
Canada	35427524	9984670
China	1365370000	9596961
India	1246160000	3166414
Indonesia	252164800	1904569
Russia	146000000	17125242
United States	318320000	9826675

8.

Exclusive OR (XOR). Show the countries that are big by area or big by population but not both. Show name, population and area.

- Australia has a big area but a small population, it should be **included**.
- Indonesia has a big population but a small area, it should be **included**.
- China has a big population **and** big area, it should be **excluded**.
- United Kingdom has a small population and a small area, it should be **excluded**.

```
select name, population, area from world
where area > 3000000 XOR population > 250000000
```

9.

Show the `name` and `population` in millions and the GDP in billions for the countries of the `continent` 'South America'. Use the ROUND function to show the values to two decimal places.

For South America show population in millions and GDP in billions both to 2 decimal places.

Millions and billions

```
select name, ROUND(population/1000000, 2), ROUND(gdp/1000000000, 2) from world
where continent = 'South America'
```

Submit SQL   Restore default

Correct answer

name	ROUND(populat..	ROUND(gdp/100..
Argentina	42.67	477.03
Bolivia	10.03	27.04
Brazil	202.79	2254.11
Chile	17.77	268.31
Colombia	47.66	369.81
Ecuador	15.77	87.50
Guyana	0.78	2.85
Paraguay	6.78	25.94
Peru	30.48	204.68

10.

Show the `name` and per-capita GDP for those countries with a GDP of at least one trillion (1000000000000; that is 12 zeros). Round this value to the nearest 1000.

Show per-capita GDP for the trillion dollar countries to the nearest $1000.

```
select name, ROUND(gdp/population, -3) from world
where gdp > 1000000000000
```

Submit SQL   Restore default

Correct answer

name	ROUND(gdp/pop..
Australia	66000
Brazil	11000
Canada	45000

China	6000
France	40000
Germany	42000
India	2000
Italy	33000

Harder Questions

11.

The CASE statement shown is used to substitute **North America** for **Caribbean** in the third column.

Show the name - but substitute Australasia for Oceania - for countries beginning with N.

```
SELECT name, continent,
       CASE WHEN continent='Caribbean' THEN 'North America'
            ELSE continent END
  FROM world
 WHERE name LIKE 'J%'
```

Submit SQL   Restore default

result

12.

Show the name and the continent - but substitute Eurasia for Europe and Asia; substitute America - for each country in North America or South America or Caribbean. Show countries beginning with A or B

Submit SQL   Restore default

result

13.

Put the continents right...

- Oceania becomes Australasia
- Countries in Eurasia and Turkey go to **Europe/Asia**
- Caribbean islands starting with 'B' go to **North America**, other Caribbean islands go to **South America**
- Order by country name in ascending order
- Test your query using the WHERE clause with the following:

```
WHERE tld IN ('.ag','.ba','.bb','.ca','.cn','.nz','.ru','.tr','.uk')
```

Show the name, the original continent and the new continent of all countries.

```
SELECT name, continent,tld
  FROM world
WHERE tld IN ('.ag','.ba','.bb','.ca','.cn','.nz','.ru','.tr','.uk')
```

Submit SQL   Restore default

result

What Next

- BBC QUIZ
- You can play a game: Find the duplicate (http://sqlzoo.net/brain/bt.htm)
- You can to continue practising the the same techniques and gain more experience of the basic skills on the Nobel table. The WHERE statement using the nobel table.
- You can learn about nested statements, these are instructive and entertaining, but not essential for beginners. Nested SELECT statements using the world table.