

SELECT from WORLD Tutorial

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

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1.

[Read the notes about this table.](#) Observe the result of running this SQL command to show the name, continent and population of all countries.

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

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 >= 200000000
```

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
```

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'
```

5.

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

```
SELECT name,population
```

```
FROM world
```

```
WHERE name IN ( 'France', 'Germany', 'Italy' )
```

6.

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

```
SELECT name FROM world
WHERE name LIKE '%United%'
```

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 population > 250000000 OR area>3000000
```

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 (population < 250000000 AND area>3000000)
OR (population > 250000000 AND area<3000000)
```

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) AS pupil_b ,  
ROUND(gdp/1000000000,2) AS gdp_t  
FROM world  
WHERE continent = 'South America'
```

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
```

11.

Greece has capital Athens.

Each of the strings 'Greece', and 'Athens' has 6 characters.

Show the name and capital where the name and the capital have the same number of characters.

- You can use the [LENGTH](#) function to find the number of characters in a string

```
SELECT name, capital
FROM world
WHERE LENGTH(name) = LENGTH(capital)
```

12.

The capital of Sweden is Stockholm. Both words start with the letter 'S'.

Show the name and the capital where the first letters of each match. Don't include countries where the name and the capital are the same word.

- You can use the function [LEFT](#) to isolate the first character.
- You can use `<>` as the **NOT EQUALS** operator.

```
SELECT name, capital
FROM world
WHERE ( LEFT(name,1) = LEFT(capital,1) )
AND (name != capital )
```

13.

Equatorial Guinea and **Dominican Republic** have all of the vowels (a e i o u) in the name. They don't count because they have more than one word in the name.

Find the country that has all the vowels and no spaces in its name.

- You can use the phrase `name NOT LIKE '%a%'` to exclude characters from your results.
- The query shown misses countries like Bahamas and Belarus because they contain at least one 'a'

```
SELECT name
  FROM world
 WHERE name LIKE '%a%' AND
        name LIKE '%e%' AND
        name LIKE '%i%'AND
        name LIKE '%o%'AND
        name LIKE '%u%' AND name NOT LIKE '% %'
```