SELECT from WORLD Tutorial

Language: English · 日本語 • 中文

| 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 |
| | | | | |

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

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Introduction

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

Submit SQL

restore default

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 |
| | т. | 2017400 |

Large Countries

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

Submit SQL

restore default

Correct answer

| maine |
|--------|
| Brazil |
| China |

India

Indonesia

United States

Per capita GDP

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

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

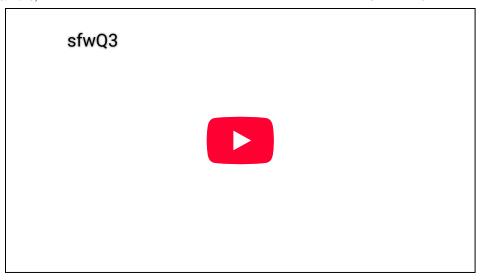
Submit SQL

restore default

Correct answer

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

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South America In millions

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/1000000 |
|-----------|--------------------|
| Argentina | 42.6695 |
| Bolivia | 10.0273 |
| Brazil | 202.7940 |
| Chile | 17.7730 |
| Colombia | 47.6620 |
| Ecuador | 15.7742 |
| Guyana | 0.7849 |

France, Germany, Italy

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 |

United

6.

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

SELECT name FROM world WHERE name like '%United%'

Submit SQL

restore default

Correct answer

name

United Arab Emirates

United Kingdom

United States

Two ways to be big

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

Submit SQL

restore default

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 |
| TT 1. 1 0 | 210220000 | 000000 |

One or the other (but not both)

8.

Exclusive OR (XOR). Show the countries that are big by area (more than 3 million) or big by population (more than 250 million) 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

Submit SQL

restore default

Correct answer

| name | population | area |
|-----------|------------|----------|
| Australia | 23545500 | 7692024 |
| Brazil | 202794000 | 8515767 |
| Canada | 35427524 | 9984670 |
| Indonesia | 252164800 | 1904569 |
| Russia | 146000000 | 17125242 |

Rounding

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 Americas show population in millions and GDP in billions both to 2 decimal places.

Millions and billions

Divide by 1000000 (6 zeros) for millions. Divide by 1000000000 (9 zeros) for billions.

Missing decimals

For some version of SQL the division of an integer by an integer will be an integer. One way to prevent this is to divide by a floating point number such as 1000000.0.

SELECT name, round(population/1000000.0,2), round(gdp/1000000000.0,2) FROM world WHERE continent='South America'

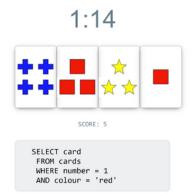
Submit SQL

restore default

Correct answer

| name | round(population/1000000.0,2) | round(gdp/1000000000.0,2) |
|-----------|-------------------------------|---------------------------|
| 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 |
| 7 | 7.50 | 25.24 |

Play the SELECT card game (https://sqlzoo.net/40289347/)



SELECT Card Game

Trillion dollar economies

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.

Submit SQL

restore default

Correct answer

| name | pre_capita_gdp |
|-----------|----------------|
| Australia | 66000 |
| Brazil | 11000 |
| Canada | 45000 |
| China | 6000 |
| France | 40000 |
| Germany | 42000 |
| India | 2000 |
| T, 1 | 22000 |

Name and capital have the same length

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

For Microsoft SQL Server the function LENGTH is LEN

SELECT name,capital FROM world
WHERE length(name)=length(capital)

Submit SQL

restore default

Correct answer

| name | capital |
|----------|----------|
| Algeria | Algiers |
| Angola | Luanda |
| Armenia | Yerevan |
| Botswana | Gaborone |
| Canada | Ottowa |
| Djibouti | Djibouti |
| Egypt | Cairo |
| T | 7D 11' |

Matching name and 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
```

Submit SQL

restore default

Correct answer

| name | capital |
|----------|---------------------|
| Algeria | Algiers |
| Andorra | Andorra la Vella |
| Barbados | Bridgetown |
| Belize | Belmopan |
| Brazil | BrasÃlia |
| Brunei | Bandar Seri Begawan |
| Burundi | Bujumbura |
| C . 1 | G . 1 G'. |

All the vowels

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 NOT LIKE '% %'
AND name LIKE '%a%'AND name LIKE '%e%'AND name LIKE '%i%'AND name LIKE '%o%'AND name LIKE '%u%'

Submit SQL

restore default

Correct answer

name

Mozambique

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What Next

- BBC QUIZ
- 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.

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