SELECT from WORLD Tutorial

Language:	English • ⊟	<u>◆語</u> • <u>中文</u>
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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

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	34262840
Albania	Europe	2761785
Algeria	Africa	45400000
Andorra	Europe	83523
Angola	Africa	33086278
Antigua and Barbuda	North America	100772
Argentina	South America	46044703
Armenia	Asia	2981200
Australia	Insular Oceania	26708900

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 2000, there are eight zeros.

SELECT name FROM world
WHERE population > 200000000;

Submit SQL

restore default

Correct answer

name
Brazil
China
India
Indonesia
Nigeria
Pakistan
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	10249.2330
China	13723.0997
India	2683.9073
Indonesia	5010.9045
Nigeria	2336.8994
Pakistan	1559.1465
United States	80087.1981



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 IN ('South America');
```

Submit SQL

restore default

Correct answer

name	population/10
Argentina	46.0447
Bolivia	12.0060
Brazil	203.0625
Chile	19.9609
Colombia	52.2155

Ecuador	18.3558
Guyana	0.7437
Paraguay	7.4537

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	68128000
Germany	84432670
Italy	58784790

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	26708900	7633565
Brazil	203062512	8460415
Canada	40282200	9093507
China	1411750000	9326410
India	1392329000	2973190
Indonesia	277749853	1811569
Russia	146424729	16378410
United States	335317000	9147593

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	26708900	7633565
Brazil	203062512	8460415
Canada	40282200	9093507
India	1392329000	2973190
Indonesia	277749853	1811569
Russia	146424729	16378410

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, 2) AS RoundValue, ROUND(gdp/1000000000,2) AS RoundValue FROM world WHERE continent IN ('South America');

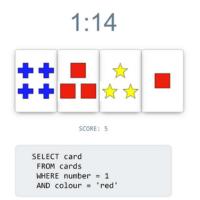
Submit SQL

restore default

Correct answer

name	RoundValue	RoundValue
Argentina	46.04	641.10
Bolivia	12.01	46.10
Brazil	203.06	2081.24
Chile	19.96	358.56
Colombia	52.22	334.69
Ecuador	18.36	121.29
Guyana	0.74	16.31
Paraguay	7.45	42.82
Peru	33.40	268.24

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 (100000000000; 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	64000
Brazil	10000
Canada	52000
China	14000
France	43000
Germany	51000
India	3000
Indonesia	5000
Italy	37000

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 <u>LENGTH</u> function to find the number of characters in a string

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	Ottawa
Djibouti	Djibouti
Egypt	Cairo
Estonia	Tallinn
Fiji	Suva

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
Guatemala	Guatemala City
Guyana	Georgetown
Kuwait	Kuwait City

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'

```
AND name LIKE '%E%'
AND name LIKE '%I%'
AND name LIKE '%O%'
AND name LIKE '%U%'
AND name LIKE '%a%'
AND name LIKE '%e%'
AND name LIKE '%i%'
AND name LIKE '%o%'
AND name LIKE '%o%'
AND name NOT LIKE '% %';
```

Submit SQL

restore default

Correct answer

name

Mozambique

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. DataWars: Practice Data Science/Analysis with +100 Real Life Projects

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This page was last modified on 25 September 2023, at 20:24.