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

result

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**

result

Per capita GDP

3.

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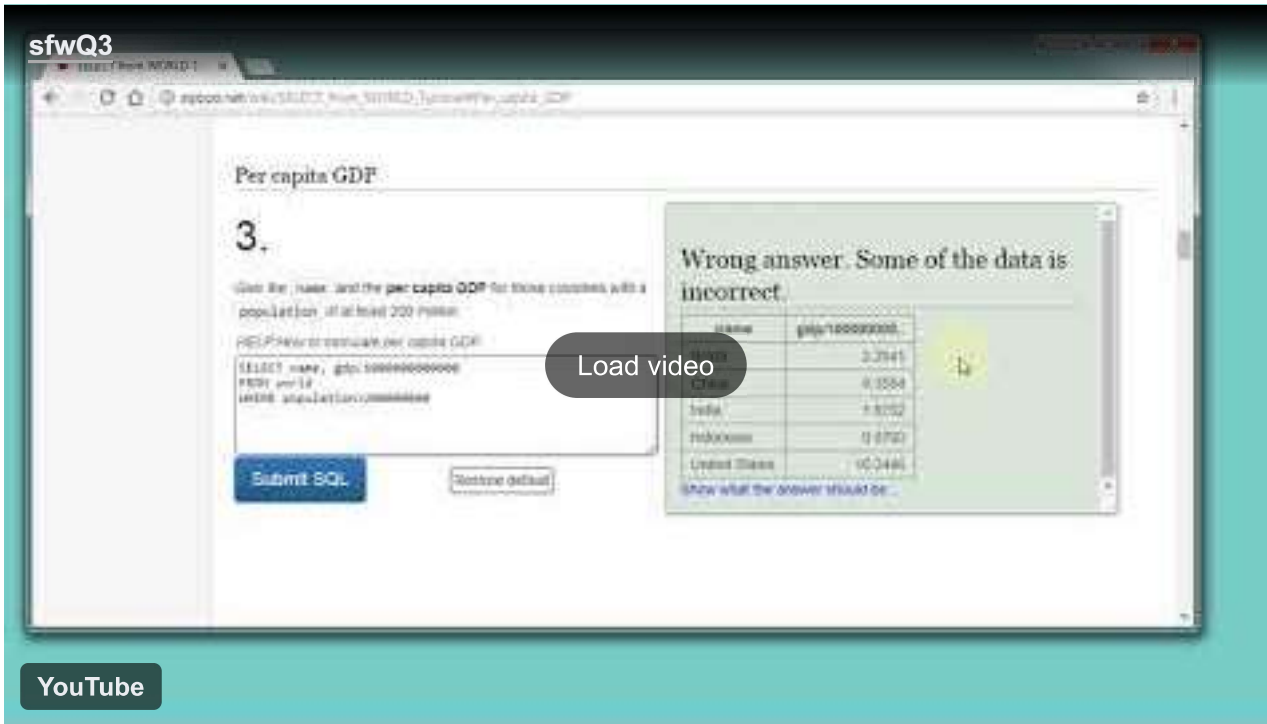
HELP:How to calculate per capita GDP

```
SELECT name, ROUND(gdp/population, 4) AS per_capita_GDP FROM
world WHERE population > 200000000;
```

Submit SQL   restore default

result

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, round(population/1000000, 4) as population  from
world where continent = 'South America';
```

Submit SQL   **restore default**

result

France, Germany, Italy

5.

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

```
select name, population from world where name = 'France'or name
= 'Germany'or name = 'Italy';
```

Submit SQL   restore default

result

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

result

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

result

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**.

result

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

Submit SQL   restore default

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

Missing decimals

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

result

Submit SQL   restore default

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

1:14

SCORE: 5

```
SELECT card
 FROM cards
 WHERE number = 1
 AND colour = 'red'
```

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.

```
SELECT name, ROUND(gdp/population, -3) AS 'per capita gdp'
FROM world
WHERE gdp >= 1000000000000;
```

Submit SQL   restore default

result

Name and capital have the same length

11.

result

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);
```

Submit SQL   restore default

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 <u>LEFT</u> 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
```

result

Submit SQL   restore default

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'

result

```
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 '% %';
```

Submit SQL   restore default

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