SELECT FROM WORLD

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

**select name, gdp/population as per_capita 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 as population_in_millions
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 AS population_in_millions,
area AS area_in_millions
FROM
world
WHERE
population >= 250000000 OR area >= 3000000;

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 AS population_in_millions,
area AS area_in_millions
FROM
world
WHERE
population >= 250000000 XOR 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 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),round(gdp/1000000000,2) 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) AS per_capita_in_millions
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 <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;

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%';

QUIZ

1. Select the code which gives the name of countries beginning with U

```
SELECT name
FROM world
WHERE nameLIKE 'U%';
```

2. Select the code which shows just the population of United Kingdom?

```
SELECT population
FROM world
WHERE population = 'United Kingdom'
```

3. Select the answer which shows the problem with this SQL code - the intended result should be the continent of France:

'name' should be name

4. Select the result that would be obtained from the following code:

```
SELECT   name, population / 10

FROM   world

WHERE   population < 10000
```

Nauru	990

5. Select the code which would reveal the name and population of countries in Europe and Asia

```
SELECT name, population
FROM world
WHERE continentIN ('Europe', 'Asia');
```

6. Select the code which would give two rows

```
SELECT nameFROM world
WHERE nameIN ('Cuba', 'Togo');
```

7.

Select the result that would be obtained from this code:

```sql
SELECT  name  FROM  world

WHERE  continent = 'South America'

AND  population > 40000000
```

Brazil

Colombia