EXERCICES : SELECT in SELECT

https://sqlzoo.net/wiki/SELECT_within_SELECT_Tutorial

world (name, continent, area, population, gdp)

This tutorial looks at how we can use SELECT statements within SELECT statements to perform more complex queries.

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
...				

1. List each country name where the population is larger than that of 'Russia'.

```
-- Énumérez chaque nom de pays où la population est plus grande que celle de la « Russie »

SELECT name

FROM world

WHERE population >

        (SELECT population FROM world

         WHERE name='Russia')
```

2. Show the countries in Europe with a per capita GDP greater than 'United Kingdom'.

```
-- Montrez les pays d'Europe avec un PIB par habitant supérieur à celui du « -- Royaume-Uni ».

SELECT name

FROM world

WHERE continent='Europe' AND (gdp/population) > (

            SELECT (gdp/population)

            FROM world

            WHERE name='United Kingdom')
```

3. **List the name and continent of countries in the continents containing either Argentina or Australia. Order by name of the country.**

```
-- Énumérez le nom et le continent des pays des continents contenant
-- l'Argentine ou l'Australie. Trier par nom de pays.
SELECT name, continent
FROM world
WHERE continent in (
        SELECT continent
        FROM world
        WHERE name in ('Argentina', 'Australia'))
```

4. **Which country has a population that is more than United Kingdom but less than Germany? Show the name and the population.**

```
-- Quel pays a une population supérieure à celle du Royaume-Uni mais
-- inférieure à celle de l'Allemagne ? Montrez le nom et la population.
SELECT name, population
FROM world
WHERE population > (SELECT population
        FROM world
        WHERE name='United Kingdom')
AND population < (SELECT population
        FROM world
        WHERE name='Germany')
```

5. **Show the name and the population of each country in Europe. Show the population as a percentage of the population of Germany.**

```
-- Affichez le nom et la population de chaque pays d'Europe.
-- Montrez la population en pourcentage de la population de l'Allemagne
SELECT name,
    CONCAT(ROUND((population / (SELECT SUM(population) FROM world WHERE
    name = 'Germany') * 100), 0), '%') AS percentage
FROM world
WHERE continent='Europe'
ORDER BY name;
```

6. Which countries have a GDP greater than every country in Europe? [Give the name only.] (Some countries may have NULL gdp values)

```
-- Quels pays ont un PIB supérieur à tous les pays d'Europe ?

-- [Donnez le nom uniquement.] (Certains pays peuvent avoir des valeurs de PIB -- nulles)

SELECT name

FROM world

WHERE gdp >= ALL(SELECT gdp FROM world WHERE continent='Europe' AND

        gdp IS NOT NULL)

    AND continent <> 'Europe'
```

7. Find the largest country (by area) in each continent, show the continent, the name and the area

```
-- Requête corrélée ou synchronisée

-- Trouvez le plus grand pays (par superficie) de chaque continent,

-- affichez le continent, le nom et la superficie :

SELECT continent, name, area

FROM world w1

WHERE area = (

        SELECT MAX(area)

        FROM world w2

        WHERE w1.continent = w2.continent)
```

8. List each continent and the name of the country that comes first alphabetically.

```
-- Énumérez chaque continent et le nom du pays qui vient

-- en premier par ordre alphabétique.

SELECT continent, MIN(name) as Pays_Alphabetique

FROM world

GROUP BY continent

ORDER BY MIN(name);
```

9. **Find the continents where all countries have a population <= 25000000. Then find the names of the countries associated with these continents. Show name, continent and population**

```
-- Trouvez les continents où tous les pays ont une population <= 2 500 000.

-- Trouvez ensuite les noms des pays associés à ces continents.

-- Afficher le nom, le continent et la population.

SELECT  name, continent, population FROM world

WHERE

  continent NOT IN (

    SELECT  continent FROM world WHERE  population > 25000000)

ORDER BY continent, name;
```

10. **Some countries have populations more than three times that of all of their neighbours (in the same continent). Give the countries and continents.**

```
-- Certains pays ont une population plus de trois fois supérieure à celle de

-- tous leurs voisins (sur le même continent).

-- Donnez les pays et les continents

SELECT w1.name, w1.continent FROM world w1

WHERE w1.population > ALL (SELECT w2.population*3 FROM world w2

            WHERE w1.continent = w2.continent

            AND w1.name <> w2.name)
```

0. Requête pour trouver le pays le grand en termes de population

```
SELECT name

 FROM world

 WHERE population >= ALL(SELECT population

          FROM world

          WHERE population>0)
```