## **SELECT within SELECT Tutorial**

<u>Language:</u> <u>English</u> • <u>日本語</u> • <u>中文</u>

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

Using nested SELECT

**Summary** 

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Three time bigger

#### **Bigger than Russia**

1.

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

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

<pre>select name from world where population &gt; (   select population from where name = 'Russia';</pre>	m world );	
Submit SQL	restore default	•
result		

#### sqlzoo select in select 1 Exercises Correct answer List each country name where the population is larger than that of name Bangladesh Load video Brazil world(name, continent, area, population, go China modele Indonesia SELECT name FROM world Nigeria. MHERE populations( Pakistan YouTube 301 Restore detault

#### Richer than UK

## 2.

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

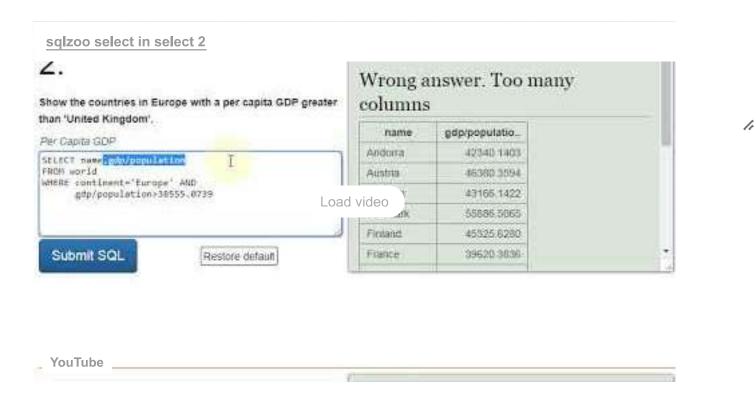
#### Per Capita GDP

```
select name from world
where continent = 'Europe' and gdp/population > (
   select gdp/population from world
   where name = 'United Kingdom' );
```

Submit SQL

restore default

result



### **Neighbours of Argentina and Australia**

3.

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

```
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                                                SELECT within SELECT Tutorial - SQLZoo
  select name, continent from world
    where continent in (select continent from world
                            where name in ('Argentina','Australia'))
    Submit SQL
                                     restore default
    result
```

#### **Between Canada and Poland**

Which country has a population that is more than United Kingdom but less than Germany? Show the name and the 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');</pre>
 Submit SQL
                                 restore default
 result
```

### **Percentages of Germany**

5.

Germany (population 80 million) has the largest population of the countries in Europe. Austria (population 8.5 million) has 11% of the population of Germany.

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

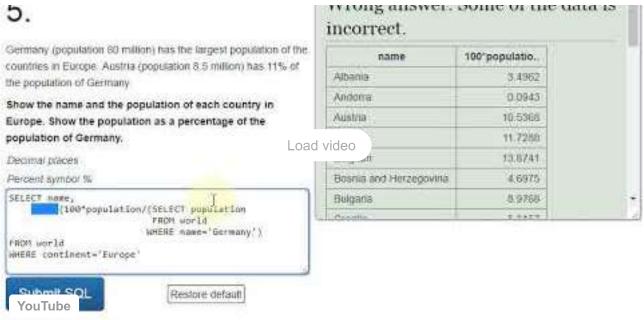
The format should be *Name*, *Percentage* for example:

name	percentage
------	------------

Albania	3%
Andorra	0%
Austria	11%

Decimal	places	1	
Percent	symbol %		
Subm	nit SQL	restore default	
result			





To get a well rounded view of the important features of SQL you should move on to the next tutorial concerning aggregates.

To gain an absurdly detailed view of one insignificant feature of the language, read on.

We can use the word ALL to allow >= or > or < =to act over a list. For example, you can find the largest country in the world, by population with this query:

```
SELECT name
FROM world
WHERE population >= ALL(SELECT population
FROM world
WHERE population>θ)
```

You need the condition **population>o** in the sub-query as some countries have **null** for population.

### Bigger than every country in Europe

6.

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

```
select name from world
 where gdp > all(select gdp from world
                   where continent = 'Europe' and gdp>0);
 Submit SQL
                                restore default
 result
```

We can refer to values in the outer SELECT within the inner SELECT. We can name the tables so that we can tell the difference between the inner and outer versions.

#### Largest in each continent

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

The above example is known as a **correlated** or **synchronized** sub-query.

*Using correlated subqueries* 

select continent, name, area from world where area >= all(select area from world w WHERE world.continent=w.continent and area > 0) Submit SQL restore default result

# First country of each continent (alphabetically)

8.

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

```
select continent, name
 from world x
 where name <= all(select name from world y
                       where y.continent = x.continent)
 Submit SQL
                                restore default
 result
```

## **Difficult Questions That Utilize Techniques Not Covered In Prior Sections**

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.

Submit SQL result	restore default	
		li,

# Three time bigger

# 10.

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

Submit SQL	restore default	
result		
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#### Nested SELECT Quiz

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