SELECT within SELECT Tutorial

From SQLZOO

ECT within SELECT

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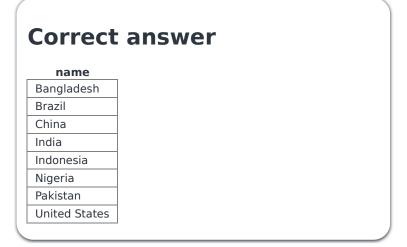
Using nested SELECT

Exercises

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

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

```
select name from world where population
>(select population from world where
name='Russia')
```
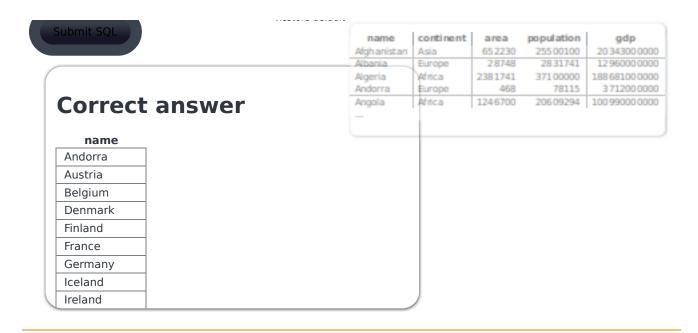
Restore default

Submit SQL

Correct answer

name
Bangladesh
Brazil
China
India
Indonesia
Nigeria
Pakistan
United States

---

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

Per Capita GDP
The per capita GDP is the gdp/population

```
 select name from world where
continent="Europe" and gdp/population  >(select
gdp/population from world where name="United
Kingdom") and continent="Europe"
```
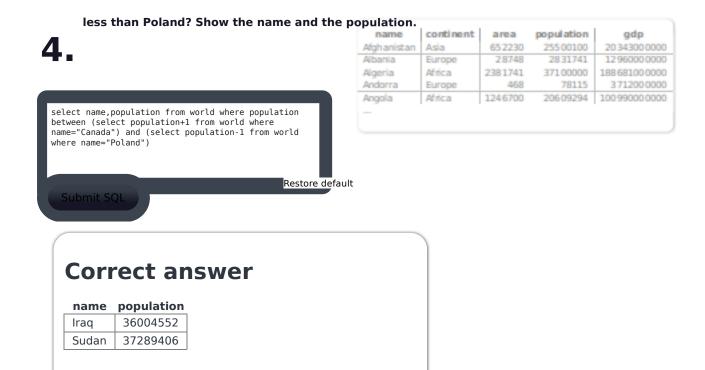
Submit SQL

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
....				

Correct answer

name
Andorra
Austria
Belgium
Denmark
Finland
France
Germany
Iceland
Ireland

3. **List the name and continent of countries in the continents containing 'Belize', 'Belgium'.**

```
select name,continent from world where
continent in (select continent from  world
where name in ("Belize","Belgium"))
```

Restore default

Submit SQL

Correct answer

name	continent
Albania	Europe
Andorra	Europe
Austria	Europe
Belarus	Europe
Belgium	Europe
Bosnia and Herzegovina	Europe
Bulgaria	Europe
Croatia	Europe
Czech Republic	Europe

Which country has a population that is more than Canada but

less than Poland? Show the name and the population.

4.

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
...				

```
select name,population from world where population
between (select population+1 from world where
name="Canada") and (select population-1 from world
where name="Poland")
```

Restore default

Submit SQL

Correct answer

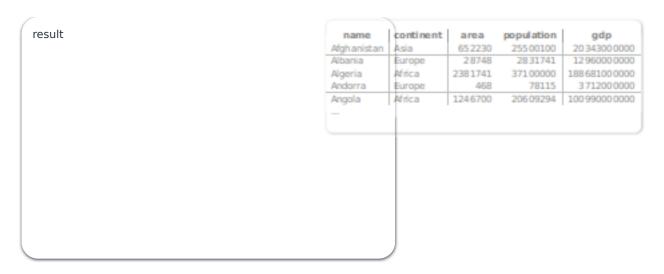| name	population
Iraq	36004552
Sudan	37289406

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 < or <=to act over a list.

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

Restore default

Submit SQL

result

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
....				

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.

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

```
SELECT continent, name, population FROM world x
  WHERE population >= ALL
    (SELECT population FROM world y
        WHERE y.continent=x.continent
          AND population>0)
```

Restore default

Submit SQL

result

Difficult Questions That Utilize Techniques Not Covered In Prior Sections

7. ■ **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.**

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
...				

Restore default

Submit SQL

result

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

Restore default

Submit SQL

result

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
...				

Nested SELECT Quiz

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