SQL ZoO

Document réponses : http://sqlzoo.net

SELECT from WORLD Tutorial

1 - 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 - 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.
select name, gdp/population 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 from world where continent='South America'

5 - Show the `name` and `population` for France, Germany, Italy
select name, population from world where name ='France' or name='Germany' or name='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, area from world where population >= 250000000 or area >= 3000000

8 - Exclusive OR (XOR). Show the countries that are big by area or big by population but not both. Show name, population and area.

select name,population, area 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.

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.

select name, round(gdp/population/1000)*1000 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.

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 **LEFT** to isolate the first character.

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 LIKE '%a%' and name LIKE '%e%' and name LIKE '%i%' and name LIKE '%o%' and name LIKE '%u%' and name not like '% %'

SELECT from Nobel Tutorial

1 - Change the query shown so that it displays Nobel prizes for 1950.
SELECT yr, subject, winner FROM nobel WHERE yr = 1950

2 - Show who won the 1962 prize for Literature.
SELECT winner FROM nobel
WHERE yr = 1962 AND subject = 'Literature'

3 - Show the year and subject that won 'Albert Einstein' his prize.
select yr, subject from nobel
where winner='Albert Einstein'

4 - Give the name of the 'Peace' winners since the year 2000, including 2000.
select winner from nobel
where subject='Peace' and yr >=2000

5 - Show all details (**yr**, **subject**, **winner**) of the Literature prize winners for 1980 to 1989 inclusive.
select yr, subject, winner from nobel
where subject='Literature' and 1980<= yr and yr <= 1989

6 -Show all details of the presidential winners:
   Theodore Roosevelt, Woodrow Wilson, Jimmy Carter, Barack Obama
SELECT * FROM nobel
WHERE winner IN ('Theodore Roosevelt', 'Woodrow Wilson', 'Jimmy Carter', 'Barack Obama')

7 - Show the winners with first name John
SELECT winner FROM nobel
WHERE winner like 'John%'

8 - Show the year, subject, and name of Physics winners for 1980 together with the Chemistry winners for 1984.
select yr, subject, winner from nobel
where subject='Physics' and yr=1980 or subject='Chemistry' and yr=1984

9 - Show the year, subject, and name of winners for 1980 excluding Chemistry and Medicine

select yr, subject, winner from nobel
where yr=1980 and subject not in ('Chemistry', 'Medicine')

10 - Show year, subject, and name of people who won a 'Medicine' prize in an early year (before 1910, not including 1910) together with winners of a 'Literature' prize in a later year (after 2004, including 2004)

select yr, subject, winner from nobel
where subject = 'Medicine' and yr < 1910
   or   subject = 'Literature' and yr >=2004

11 - Find all details of the prize won by PETER GRÜNBERG. ??????

select * from nobel
where winner = 'PETER GRÜNBERG'

12 - Find all details of the prize won by EUGENE O'NEILL

select * from nobel
where winner = 'EUGENE O''NEILL'

13 - List the winners, year and subject where the winner starts with Sir. Show the the most recent first, then by name order.

select winner, yr, subject from nobel
where winner like 'Sir%' order by yr DESC, winner

14 - The expression subject IN ('Chemistry','Physics') can be used as a value => it will be 0 or 1. Show the 1984 winners and subject ordered by subject and winner name; but list Chemistry and Physics last.

SELECT winner, subject FROM nobel
WHERE yr=1984 ORDER BY subject IN ('Chemistry','Physics'), subject, winner

SELECT within SELECT

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

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'.

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.

select name, continent from world
where continent in (
                    select continent from world
                    where name = 'Argentina' or name = 'Australia')
order by name

4 - Which country has a population that is more than Canada but less than Poland ? Show the name and the population.

select name, population from world where
population > (select population from world where name='Canada') and
population < (select population from world where name='Poland')

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

select name, population from world
where continent = 'Europe'

select name, CONCAT(ROUND(population/(select population from world
                                      where name='Germany')*100), '%')
from world where continent = '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)

select name from world
where gdp > (select max(gdp) from world where
             continent='Europe' and gdp < > 'NULL')

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

SELECT continent, name, area FROM world as w
WHERE w.area >= ALL (SELECT area FROM world as w2
                    WHERE w2.continent=w.continent
                    AND area>0)

8 - List each continent and the name of the country that comes first alphabetically:
select continent, name from world as w
where name<= all (
                select name from world as w2
                where continent = w.continent)

select continent, name from world as w
where name=(
                select min(name) from world as w2
                where continent = w.continent)

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.

select name, continent, population from world
where continent in(
                        select distinct continent from world where continent not in (
                                select continent from world
                                where population > 25000000
                                group by continent))

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

Pays de population max :
select name, population from world as w2
where population=(select max(population) from world
                        where continent=w2.continent)

Population du 2ème pays du continent ici en Europe
select max(population) from world as w
where continent='Europe' and w.name not in (#On exclut le pays de pop max
        select name from world as w2
        where w2.population=(
                select max(population) from world
                where continent='Europe'))

Soit ma proposition de solution :   (prendre 3 grandes respirations)

select name, continent from world as w2
where population=(
        select max(population) from world
        where continent=w2.continent
        and w2.population > 3*(
                select max(population) from world as w
                where continent=w2.continent and w.name not in (
                        select name from world as w2
                        where w2.population = (select max(population) from world
                                            where continent=w2.continent))))

J'espère qu'il y a plus simple …..

SUM and COUNT

1 - Show the total **population** of the world.
SELECT SUM(population) FROM world

2 - List all the continents - just once each.
Select distinct continent from world

3 - Give the total GDP of Africa
select sum(gdp) from world where continent ='Africa'

4 - How many countries have an **area** of at least 1000000
select count(name) from world where area >= 1000000

5 - What is the total **population** of ('Estonia', 'Latvia', 'Lithuania')
select sum(population) from world where name = 'Estonia' or name = 'Latvia'
or name = 'Lithuania'

6 - For each **continent** show the **continent** and number of countries.
select continent, count(name) from world
group by continent

7 - For each **continent** show the **continent** and number of countries with populations of at least 10 million.
select continent, count(name) from world where population>=10000000
group by continent

8 - List the continents that **have** a total population of at least 100 million.
select continent from world
group by continent having sum(population)>=100000000

More JOIN operations

1 - List the films where the **yr** is 1962 [Show **id**, **title**]
 SELECT id, title FROM movie WHERE yr=1962

2 - When was Citizen Kane released?
select yr from movie where title='Citizen Kane'

3 -List all of the Star Trek movies, include the **id**, **title** and **yr** (all of these movies include the words Star Trek in the title). Order results by year.
select id,title, yr from movie where title like '%Star Trek%'
order by yr asc

4 - What **id** number does the actor 'Glenn Close' have?
select id from actor where name='Glenn Close'

5 - What is the **id** of the film 'Casablanca'
select id from movie where title='Casablanca'

6 -Obtain the cast list for 'Casablanca'.
The cast list is the names of the actors who were in the movie.

select name from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where movie.title='Casablanca'

7 - Obtain the cast list for the film 'Alien'
select name from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where movie.title='Alien'

8 - List the films in which 'Harrison Ford' has appeared
select movie.title from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where actor.name='Harrison Ford'

9 - List the films where 'Harrison Ford' has appeared - but not in the starring role. [Note: the **ord** field of casting gives the position of the actor. If ord=1 then this actor is in the starring role]
select movie.title from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where actor.name='Harrison Ford' and casting.ord>1

10 - List the films together with the leading star for all 1962 films.
select distinct movie.title, actor.name from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where casting.ord=1 and yr=1962

13 - Obtain a list, in alphabetical order, of actors who've had at least 30 starring roles.
select actor.name from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id
where casting.ord=1
group by actor.name having count(movie.title)>=30
order by actor.name ASC

14 - List the films released in the year 1978 ordered by the number of actors in the cast, then by title.
select movie.title, count(actorid) from actor join casting on actor.id = casting.actorid join movie on casting.movieid = movie.id where movie.yr=1978
group by movie.title
order by count(actorid) DESC,movie

15 - List all the people who have worked with 'Art Garfunkel'.

select actor.name from actor join casting on actor.id = casting.actorid join
movie on casting.movieid = movie.id
where movie.title in (
select movie.title from actor join casting on actor.id = casting.actorid join
movie on casting.movieid = movie.id
where actor.name='Art Garfunkel'
) and not(actor.name='Art Garfunkel')