use world;

# Create a report that displays the Code of a country along with the number of cities of that country. (GROUP BY, COUNT)

select CountryCode, count(\*) city from city group by CountryCode;

# Restrict the previous query to the countries with more than 200 cities. (GROUP BY, HAVING)

select CountryCode, name from city group by CountryCode having count (\*) > 200;

# Run the next query and explain what happens:

SELECT countrycode,COUNT(\*) FROM city GROUP BY countrycode WHERE COUNT(\*) > 200;

#no result were returned due to incorrect syntax used with where count(\*)

# Create a report that displays the Code of a country along with the number of cities of that country and the total population of these cities. (GROUP BY, COUNT,SUM)

select CountryCode, sum(Population), count(\*) city from city group by CountryCode;

# Create a report that displays the district, the code of a country along with the number of cities of that district. (GROUP BY on two fields, COUNT)

select CountryCode, district, count(\*) city from city group by CountryCode, district;

# Create a report that displays the the code of a country along with the number of cities of that country, the total population of these cities and the average population (GROUP BY, COUNT, SUM, AVG)

select CountryCode, sum(population), AVG(population), Count(\*) city From city Group by CountryCode;

# Create a report that displays the district, the code of a country along with the number of cities of that district, the total population of these cities and the average population. Select only the district starting with 'a' (GROUP BY on two fields, COUNT, SUM, AVG, HAVING)

select district, CountryCode, sum(population), avg(population), count(\*) from city group by district, CountryCode having district like 'a%';

# Restrict the previous query to the districts with more than 10 cities. (HAVING, AND)

select district, CountryCode, sum(population), avg(population), count(\*) from city group by district, CountryCode having district like 'a%' and count(\*) >10;

# Create a report that displays the number of cities in the table, the total population, the average population, the minimal population value and the maximal population value. (COUNT, SUM, AVG, MIN, MAX)

select count(\*) city, sum(population), avg(population), min(population), max(population) from city;

select PFDate, DestIP, sourceIP, DestPort from pf where DestPort=6699;

select PFDate, DestIP, SourceIP, DestPort from pf where DestPort=6699 or (DestPort=137) or (DestPort=53);

select PFDate, DestIP, SourceIP, DestPort from pf where DestPort in (6699,137,53);

select distinct SourceIP from pf;

select count(\*) DestPort from pf where DestPort=139;

select count(\*) Protocol from pf where Protocol= 'tcp';

select count(\*) Protocol from pf where Protocol= 'udp';

select distinct SourceIP from pf where SourceIP like '24%';

#Display everything that is know about the city with the ID of 31.

select \* from city where id=31;

#List the Names of all cities in Holland (code of NLD)

select Name from city where countrycode = 'NLD';

#List the Name and the code of all the cities with a population larger than 20000. Sort the output by Population in descending order

select Name, countryCode from city where Population >= 20000 order by Population desc;

#List the Names, the region, the year of Independence and the population of the countries that became independent in 1975 as well as the countries

#that became independent before 1991 (exclusively) and whose population is less than 22000000.

select Name, region, indepyear, Population from country where IndepYear = 1975 or Indepyear<=1991 and population<22000000;

#List the Names and the IndepYear of all the countries that became independent between 1960 and 1980 (both exclusively). Sort the output by independence year.

select Name, IndepYear from country where IndepYear>1960 and IndepYear<1980 order by IndepYear;

#List the Names and the continent of all the countries that became independent between 1960 and 1980 (both exclusively). Sort the output by independence year.

select Name, continent from country where IndepYear>1960 and IndepYear<1980 order by IndepYear;

#Using OR, list the Names and the continent of all the countries in Europe and North America. Sort the output by continent then by Name.

select Name, continent from country where continent = 'Europe' or Continent = 'North America' order by continent and Name;

#Using NOT IN, list the Names and the continent of all the countries not in Europe nor North America. Sort the output by continent then by Name.

select Name, Continent from country where Continent not in ('Europe', 'North America') order by Continent and Name;

#List the Names and the continent of all the countries whose continent's Name contains the string America. Sort the output by continent then by Name.

select Name, Continent from country where Continent like '%America' order by Continent and Name;

#Using LIKE, list the Names and the continent of all the countries whose Name contains exactly 5 characters. Sort the output by continent then by Name. (hint: \_)

select Name, continent from country where Name like '\_\_\_\_\_' order by continent and Name;

#Using LIKE, list the Names and the continent of all the countries whose Name contains exactly 5 characters and whose third character in the Name is a y. Sort the output by continent then by Name. (hint: \_)

select Name, continent from country where Name like '\_\_y\_\_' order by continent and Name;

#List the Names, the continent and the IndepYear of all the countries whose IndepYear field is not defined. Sort the output by continent then by Name.

select Name, continent, IndepYear from country where IndepYear is null order by continent and Name;

#List the Names, the continent and the IndepYear of all the countries whose IndepYear field is defined. Sort the output by continent then by Name

select Name, continent, IndepYear from country where IndepYear is not null order by continent and Name;

#Using LIMIT, extract the first 5 records of the previous query.

select Name, continent, IndepYear from country where IndepYear is not null order by continent and Name limit 5;

#aggregate functions keyword 'group by'

select distinct region, indepyear from country order by 2,1;

select distinct region, indepyear from country where indepyear is not null order by 1,2;

select count(\*) from city where countryCode = 'afg';

select countryCode, count(\*) from city group by countryCode;

select distinct countryCode from city order by countryCode;

#bad bad bad query

#select countryCode, count(\*) from city;

select countryCode, count(\*) from city group by countryCode having count(\*) >=28;

select countryCode, count(\*) from city where CountryCode like 'u%' group by countryCode having count(\*) >=28 order by count(\*);

select countryCode, count(\*) from countrylanguage group by countryCode;

select countrycode, count(\*) from countrylanguage where CountryCode like 'ch\_' group by countrycode;

select continent, count(\*) from country where indepyear is not null group by continent;

select continent, count(\*) from country where IndepYear is not null group by continent having count(\*) > 15 order by IndepYear desc limit 2;

select \* from country where name like 'f%';

select \* from country where name like 'C%';

select \* from country where name not like 'C%';

select \* from country where continent in ('asia', 'africa');

select 3+4;

select max(Population) from country;

select min(Population) from country;

select avg(Population) from country;

select sum(Population) from country;

select count(\*) from country;

select max(Population),as 'max', min(Population), as 'min', avg(Population), count(\*)

select name from country where Population

select name from country where population =(select max(population) from country);

select name from country where population =(select avg(population) from country);