Task 4

Initially I have loaded in built table from my sql . The name of the table is **country**

a) Using select, where, order by, group by

Using select clause

Query: select name, continent, population from country;

Output:

name	continent	population
Aruba	North America	103000
Afghanistan	Asia	22720000
Angola	Africa	12878000
Anguilla	North America	8000
Albania	Europe	3401200
Andorra	Europe	78000
Netherlands Antilles	North America	217000
United Arab Emirates	Asia	2441000
Argentina	South America	37032000
Armenia	Asia	3520000

Using where clause:

Query: select name, continent, population from country where population > 100000000;

Output:

name	continent	population
Bangladesh	 Asia	 129155000
Brazil	South America	170115000
China	Asia	1277558000
Indonesia	Asia	212107000
India	Asia	1013662000
Japan	Asia	126714000
Nigeria	Africa	111506000
Pakistan	Asia	156483000
Russian Federation	Europe	146934000
United States	North America	278357000

Using Group by clause:

Query: select continent, sum(population) as Total population from country group by continent;

Output:

continent	Totalpopulation
North America Asia Africa Europe South America Oceania Antarctica	482993000 3705025700 784475000 730074600 345780000 30401150

Using order by clause:

Query: select name, population from country order by population desc;

Output:

пате	population
China	1277558000
India	1013662000
United States	278357000
Indonesia	212107000
Brazil	170115000
Pakistan	156483000
Russian Federation	146934000
Bangladesh	129155000
Japan	126714000
Nigeria	111506000
Mexico	98881000
Germany	82164700

b) Using joins (inner,left,right)

Using inner join:

Query: select city.name as cityname, country.name as countryname From city

Inner join country on city.countrycode=country.code;

Tanjung Pinang	Indonesia
Mumbai (Bombay)	India
Delhi	India
Calcutta [Kolkata]	India
Chennai (Madras)	India
Hyderabad	India
Ahmedabad	India
Bangalore	India
Kanpur	India
Nagpur	India
Lucknow	India
Pune	India

Using left join:

Query: select city.name, country.name

from city

left join country on city.countrycode=country.code;

Output:

Vishakhapatnam		India
Jabalpur	1	India
Amritsar	1	India
Faridabad	1	India
Vijayawada	1	India

Using right join:

Query: select city.name, country.name

from city

right join country on city.countrycode=country.code;

Output:

Harare	Zimbabwe
Bulawayo	Zimbabwe
Chitungwiza	Zimbabwe
Mount Darwin	Zimbabwe
Mutare	Zimbabwe
Gweru	Zimbabwe

c) Using subqueries

Query: select name, population

from country

where population >

(select avg(population)

from country);

output:

United Kingdom	59623400
Indonesia	212107000
India	1013662000
Iran	67702000
Italy	57680000

d) Aggregate functions

Sum: select region, sum(gnp) as totalgnp from country group by Region;

output:

region	totalgnp
Caribbean Southern and Central Asia Central Africa Southern Europe Middle East South America Polynesia	103586.20 810604.00 32938.00 2012289.00 677260.00 1511874.00

Avg: select continent, avg(lifeexpectancy) as avglifeexpectancy from country group by continent;

output:

continent	avglifeexpectancy
North America	72.99189
Asia	67.44118
Africa	52.57193
Europe	75.14773
South America	70.94615
Oceania	69.71500
Antarctica	NULL