**Assignment 2**

Write SQL queries for the below mentioned requirements to

extract:

1. Countries and their continents. Order the results by continent names.

select continents.continent,countries.countryName

from continents , countries

where continents.contid=countries.contid

order by 1;

1. Number of countries within each continent

SELECT Continents.continent, COUNT(countries.countryName) AS country\_count

FROM Continents

JOIN countries cou ON Continents.contid = Countries.contid

GROUP BY Continent.continent

ORDER BY Continent.continent;

1. countries with no car makers?

SELECT Country.countryName

FROM Countries

LEFT JOIN car\_Makers cm ON Countries. CountryID = Car\_Maker. CountryID

WHERE Car\_Makers.country IS NULL;

1. List of Car makers from Japan

select cont.continent, cntry.countryname, cm.maker, cm.fullname

from CONTINENTS cont

inner join COUNTRIES cntry on cont.contid=cntry.continent

inner join CAR\_MAKERS cm on cntry.countryid=cm.country

where cntry.countryname ='japan'

order by 1,2,3;

1. List of Car makers from France and USA

select cont.continent, cntry.countryname, cm.maker, cm.fullname

from CONTINENTS cont

inner join COUNTRIES cntry on cont.contid=cntry.continent

inner join CAR\_MAKERS cm on cntry.countryid=cm.country

where cntry.countryname in (‘France’ , ‘USA’)

order by 1,2,3;

1. Country and continent of Volvo car maker

SELECT

CarMakers.CompanyName,

Countries.Country,

Countries.Continent

FROM

CarMakers

JOIN

Countries ON CarMakers.Country = Countries.Country

WHERE

CarMakers.CompanyName = 'Volvo';

7. Car models from 'Ford Motor Company'

SELECT

CarModels.ModelName

FROM

CarModels

JOIN

CarMakers ON CarModels.MakerID = CarMakers.MakerID

WHERE

CarMakers.CompanyName = 'Ford Motor Company';

8.How many car models are made by Germany?

SELECT

COUNT(\*) AS NumberOfCarModels

FROM

Car\_Models

JOIN

Car\_Makers ON Models.MakerID = Car\_Makers.ID

JOIN

Countries ON CarMakers.Country = Countries.CountryID

WHERE

Countries.CountryName = 'Germany';

9. Car models made by Japan along with maker details.

SELECT

Models.ModelName,

Car\_Makers.CompanyName,

Car\_Makers.Country

FROM

Models

JOIN

Car\_Makers ON Car\_Models.ID = Car\_Makers.ID

JOIN

Countries ON CarMakers.Country= Countries.ConuntryID

WHERE

Countries.CountryName = 'Japan';

10. Which car models have highest and lowest values of below attributes. Extract the car maker and geography (country and continent) information also:

a. Mpg

b. Cylinders

c. Edispl

d. Horsepower

e. Weight

select cn.Model, cn.Descr, cd.Weight

from Car\_Names cn

inner join Car\_Details cd ON cn.ID = cd.ID

where cd.Weight = (select max(Weight) from Car\_Details);

f. Acel

11. In which year most cars were made?

12. Which year had less cars made?select continents.continent,country.countryName

from continents , country

where continents.contid=country.contid

order by 1;

14. Please carry out a small statistical analysis around (1) Horsepower (2) Weight (3) Accel. Try calculating the mean, median and standard deviation. Use SQL queries to extract these measures. What do these measures convey about horsepower and weight of the cars data? Share SQLS and few bullets on your understanding on the values captured for mean, median and standard deviation.

15. Draw the entity-relationship (ER) model depicting car database tables, PK and FK (i.e., relationships between them) on a plain paper using pen/pencil. Share the screenshot (ensure picture is clearly visible) and share.