Master Project

----I have done this assignment in snowflake where I had created three tables (SQL)Accidents, Vehicle, Vehicle\_Type and then I had loaded the datasets provided in the assignment.

USE UK\_ROAD\_SAFETY;

CREATE TABLE VEHICLE\_TYPE

(CODE INT,

LABEL VARCHAR(80));

SELECT \* FROM VEHICLE\_TYPE;

CREATE TABLE VEHICLE

(ACCIDENT\_INDEX VARCHAR(20),

VEHICLE\_REFERENCE INT,

VEHICLE\_TYPE INT,

TOWING\_ARTICULATION INT,

VEHICLE\_MANOEUVRE INT,

LOCATION\_RESTRICTEDLANE INT,

JUNCTION\_LOCATION INT,

SKIDDING\_OVERTURNING INT,

HIT\_OBJECTIN\_CARRIAGEWAY INT,

VEHICLE\_LEAVING\_CARRIAGEWAY INT,

HIT\_OBJECT\_OFF\_CARRIAGEWAY INT,

ISTPOINTOF\_IMPACT INT,

LEFT\_HANDDRIVE INT,

PURPOSE\_OF\_DRIVER INT,

SEX\_OF\_DRIVER INT,

AGE\_OF\_DRIVER INT,

ANGE\_BAND INT,

ENGINE\_CAPACITY INT,

PROPULSION INT,

AGE\_OF\_VEHICLE INT,

DRIVER\_IMD\_DECILE INT,

DRIVER\_HOME\_AREA\_TYPE INT,

VEHICLE\_IMD\_DECILE INT);

DESCRIBE TABLE VEHICLE;

SELECT \* FROM VEHICLE;

CREATE TABLE ACCIDENTS

(ACCIDENT\_INDEX VARCHAR(20) PRIMARY KEY,

LOCATION\_EASTING\_OSGR INT,

LOCATION\_NORTHING\_OSGR INT,

LONGITUDE FLOAT,

LATITUDE FLOAT,

POLICE\_FORCE INT,

ACCIDENT\_SEVERITY INT,

NO\_OF\_VEHICLE INT,

NO\_OF\_CASUALITIES INT,

DATE\_OF\_ACCIDENT DATE,

DAY\_OF\_WEEK INT,

TIME\_OF\_ACCIDENT TIME,

LOCAL\_AUTHORITY\_DISTRICT INT,

LOCAL\_AUTHOIRTY\_HIGHWAY VARCHAR(15),

FST\_ROAD\_CLASS INT,

FST\_ROAD\_NO INT,

ROAD\_TYPE INT,

SPEED\_LIMIT INT,

JUNCTION\_DETAIL INT,

JUNCTION\_CONTROL INT,

SEC\_ROAD\_CLASS INT,

SECOND\_ROAD\_NO INT,

PEDISTRIAN\_HUMAN\_CONTROL INT,

PEDISTRIAN\_FACILITIES INT,

LIGHT\_CONDITION INT,

WEATHER\_CONDITION INT,

ROAD\_CONDITION INT,

SPECIAL\_CONDITION INT,

CARRIAGEWAY\_HAZARD INT,

URBAN\_RURAL\_AREA INT,

POLICEOFFICER\_ATTEND\_SECENE\_OF\_ACCIDENT INT,

LSOA\_OF\_ACCIDENT\_LOCATION VARCHAR(20))

SELECT \* FROM ACCIDENTS;

**---- median severity value of accidents caused by various Motorcycles**

SELECT vt.LABEL AS Vehicle\_Type, MEDIAN(a.ACCIDENT\_SEVERITY)AS Median\_Severity

FROM ACCIDENTS a

LEFT JOIN VEHICLE v ON a.ACCIDENT\_INDEX = v.ACCIDENT\_INDEX

LEFT JOIN VEHICLE\_TYPE vt ON v.VEHICLE\_TYPE = vt.CODE

WHERE vt.LABEL LIKE '%Motorcycle%'

GROUP BY 1

ORDER BY 2

**---- Accident Severity and Total Accidents per Vehicle Type**

SELECT vt.LABEL AS Vehicle\_Type,SUM(a.ACCIDENT\_SEVERITY) AS Severity, COUNT(vt.LABEL) AS No\_of\_Accidents

FROM ACCIDENTS a

LEFT JOIN VEHICLE v ON a.ACCIDENT\_INDEX = v.ACCIDENT\_INDEX

LEFT JOIN VEHICLE\_TYPE vt ON v.VEHICLE\_TYPE = vt.CODE

GROUP BY 1

ORDERBY 2,3

**----Calculate the Average Severity by vehicle type**

SELECT vt.LABEL AS Vehicle\_Type, AVG(a.ACCIDENT\_SEVERITY)AS Average\_Severity

FROM ACCIDENTS a

LEFT JOIN VEHICLE v ON a.ACCIDENT\_INDEX = v.ACCIDENT\_INDEX

LEFT JOIN VEHICLE\_TYPE vt ON v.VEHICLE\_TYPE = vt.CODE

GROUP BY 1

ORDER BY 2

**---- Calculate the Average Severity and Total Accidents by Motorcycle.**

SELECT vt.LABEL AS Vehicle\_Type, AVG(a.ACCIDENT\_SEVERITY)AS Average\_Severity, COUNT(vt.LABEL) AS No\_of\_Accidents

FROM ACCIDENTS a

LEFT JOIN VEHICLE v ON a.ACCIDENT\_INDEX = v.ACCIDENT\_INDEX

LEFT JOIN VEHICLE\_TYPE vt ON v.VEHICLE\_TYPE = vt.CODE

WHERE vt.LABEL LIKE '%Motorcycle%'

GROUP BY 1

ORDER BY 2,3

----Analysing World Population

USE Population\_Assignment;

CREATE TABLE WORLD\_POPULATION

(ID INT PRIMARY KEY,

COUNTRY VARCHAR(50),

POPULATION INT,

YEARLY\_CHANGE DECIMAL,

POPULATION\_GROWTH INT,

DENSITY INT,

LAND\_AREA INT,

MIGRATION INT,

BIRTH\_RATE DECIMAL,

MED\_AGE INT,

WORLD\_SHARE DECIMAL);

SELECT \* FROM WORLD\_POPULATION;

-- Which country has the highest population

SELECT COUNTRY, POPULATION

FROM WORLD\_POPULATION

WHERE POPULATION = (SELECT MAX(POPULATION) FROM WORLD\_POPULATION);

-- Which country has the least number of people

SELECT COUNTRY, POPULATION

FROM WORLD\_POPULATION

WHERE POPULATION = (SELECT MIN(POPULATION) FROM WORLD\_POPULATION);

-- Which country is witnessing the highest population growth

SELECT COUNTRY, POPULATION\_GROWTH

FROM WORLD\_POPULATION

WHERE POPULATION\_GROWTH = (SELECT MAX(POPULATION\_GROWTH) FROM WORLD\_POPULATION);

-- Which is the most densely populated country in the world

SELECT COUNTRY, DENSITY

FROM WORLD\_POPULATION

WHERE DENSITY = (SELECT MAX(DENSITY) FROM WORLD\_POPULATION);

-- Which country has an extraordinary number for the population

SELECT COUNTRY, POPULATION

FROM WORLD\_POPULATION

WHERE POPULATION = (SELECT MAX(POPULATION) FROM WORLD\_POPULATION);