CREATE DATABASE USACCIDENT;

USE USACCIDENT;

CREATE TABLE ACCIDENT

Accident\_Index VARCHAR(20),

Accident\_Severity INT );

CREATE TABLE VEHICLES(

Accident\_Index VARCHAR(20),

Vehicle\_Type INT);

CREATE TABLE VEHICLES\_TYPE (

Vehicles\_code INT,

Vehicle\_Type VARCHAR(50));

LOAD DATA INFILE 'G:\\inueron\\us\_accident\\ACCIDENT.CSV'

INTO TABLE ACCIDENT

fields terminated by ','

enclosed by '"'

LINES terminated by '\n'

IGNORE 1 LINES

(@col1, @dummy, @dummy, @dummy, @dummy, @dummy, @col2, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy)

SET Accident\_Index = @col1,Accident\_Severity= @col2;

-- we are using @dummy because we want to skip that column

LOAD DATA INFILE 'G:\\inueron\\us\_accident\\Vehicles\_2015.CSV'

INTO TABLE VEHICLES

fields terminated by ','

enclosed by '"'

LINES terminated by '\n'

IGNORE 1 LINES

(@col1, @dummy, @col2, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy, @dummy)

SET Accident\_Index = @col1 , Vehicle\_Type = @col2;

LOAD DATA INFILE 'G:\\inueron\\us\_accident\\vehicle\_types.CSV'

INTO TABLE VEHICLES\_TYPE

fields terminated by ','

enclosed by '"'

LINES terminated by '\n'

IGNORE 1 LINES;

SELECT \* FROM ACCIDENT;

SELECT DISTINCT(COUNT(\*)) FROM VEHICLES;

SELECT COUNT(\*)FROM VEHICLES\_TYPE;

CREATE TABLE Accident\_data AS

SELECT A.\* ,VT.\*

FROM ACCIDENT A

JOIN VEHICLES V ON A.Accident\_Index = V.Accident\_Index

JOIN VEHICLES\_TYPE VT ON V.Vehicle\_Type = VT.Vehicles\_code;

SELECT COUNT(\*) FROM Accident\_data;

SELECT \* FROM Accident\_data;

-- 1 Evaluate the median severity value of accidents caused by various Motorcycles

WITH SORT AS(SELECT \* ,row\_number() OVER(ORDER BY Accident\_Severity ASC ) AS RN\_ASC,

ROW\_NUMBER() OVER(ORDER BY Accident\_Severity DESC) AS RN\_DESC FROM Accident\_data WHERE Vehicle\_Type LIKE 'MOTOR%')

SELECT Vehicle\_Type, AVG(Accident\_Severity) AS MEDIAN FROM SORT WHERE abs('RN\_ASC'-'RN\_DESC') <=1

GROUP BY 1;

-- 2 Evaluate Accident Severity and Total Accidents per Vehicle Type

SELECT Vehicle\_type,sum(Accident\_Severity)as Total\_serverity ,count(\*) as Total\_Accidents from Accident\_data

group by Vehicle\_type;

-- 3 Calculate the Average Severity by vehicle type

SELECT Vehicle\_type, Avg(Accident\_Severity) as Avg\_Severity from Accident\_data

group by Vehicle\_type;

-- 4 Calculate the Average Severity and Total Accidents by Motorcycle

SELECT Vehicle\_type ,Avg(Accident\_Severity) AS Avg\_Severity ,COUNT(\*) AS TOTAL\_ACCIDENT FROM Accident\_data

WHERE Vehicle\_type LIKE 'MOTOR%'

GROUP BY Vehicle\_type;