**Ineuron SQL Master Project (2)**

**Project 1: Analyzing Road Safety in UK**

use demo\_database;

-- create table accidents

create table accidents(

Accident\_Index varchar(30),

Location\_Easting\_OSGR int,

Location\_Northing\_OSGR int,

Longitude float,

Latitude float,

Police\_Force int,

Accident\_Severity int,

Number\_of\_Vehicles int,

Number\_of\_Casualties int,

Accident\_Date date,

Day\_of\_Week date,

Accident\_Time time,

Local\_Authority\_District int,

Local\_Authority\_Highway varchar(30),

first\_Road\_Class int,

first\_Road\_Number int,

Road\_Type int,

Speed\_limit int,

Junction\_Detail int,

Junction\_Control int,

second\_Road\_Class int,

second\_Road\_Number int,

Pedestrian\_Crossing\_Human\_Control int,

Pedestrian\_Crossing\_Physical\_Facilities int,

Light\_Conditions int,

Weather\_Conditions int,

Road\_Surface\_Conditions int,

Special\_Conditions\_at\_Site int,

Carriageway\_Hazards int,

Urban\_or\_Rural\_Area int,

Did\_Police\_Officer\_Attend\_Scene\_of\_Accident int,

LSOA\_of\_Accident\_Location varchar(30)

);

-- Load Data into Mysql

Load Data local Infile

"C:/Users/ranji/Downloads/Accidents\_2015.csv"

INTO TABLE accidents

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

SHOW GLOBAL VARIABLES LIKE 'local\_infile';

set global local\_infile = 1;

select \* from accidents;

-- create table vehicles

create table vehicles(

Accident\_Index varchar(30),

Vehicle\_Reference int,

Vehicle\_Type int,

Towing\_and\_Articulation int,

Vehicle\_Manoeuvre int,

Vehicle\_Location\_Restricted\_Lane int,

Junction\_Location int,

Skidding\_and\_Overturning int,

Hit\_Object\_in\_Carriageway int,

Vehicle\_Leaving\_Carriageway int,

Hit\_Object\_off\_Carriageway int,

First\_Point\_of\_Impact int,

Was\_Vehicle\_Left\_Hand\_Drive int,

Journey\_Purpose\_of\_Driver int,

Sex\_of\_Driver int,

Age\_of\_Driver int,

Age\_Band\_of\_Driver int,

Engine\_Capacity\_CC int,

Propulsion\_Code int,

Age\_of\_Vehicle int,

Driver\_IMD\_Decile int,

Driver\_Home\_Area\_Type int,

Vehicle\_IMD\_Decile int

);

-- Load data into vehicles table

Load Data local Infile

"C:/Users/ranji/Downloads/Vehicles\_2015.csv"

INTO TABLE vehicles

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

SHOW GLOBAL VARIABLES LIKE 'local\_infile';

set global local\_infile = 1;

select \* from vehicles;

-- create table vehicle\_types

create table vehicle\_types(

code int,

label varchar(100)

);

-- Load data into vehicle\_types table

Load Data local Infile

"C:/Users/ranji/Downloads/vehicle\_types.csv"

INTO TABLE vehicle\_types

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

select \* from vehicle\_types;

-- Creating a Master Table by joining accidents, vehicles and vehicle\_types table

create table sw\_road\_safety\_master AS

select a.Accident\_Index, a.Accident\_Severity, v.Vehicle\_Type, vt.code, vt.label

from accidents as a

LEFT outer join vehicles as v on a.Accident\_Index = v.Accident\_Index

LEFT outer join vehicle\_types as vt on v.Vehicle\_Type = vt.code;

select \* from sw\_road\_safety\_master;

-- Evaluate Accident Severity and Total Accidents per Vehicle Type

select label, Vehicle\_Type, Accident\_Severity, Count(distinct Vehicle\_Type) as No\_of\_Accidents

from sw\_road\_safety\_master

group by 1,2,3

having label is not null;

-- Calculate the Average Severity by vehicle type.

select label, Vehicle\_Type, avg(Accident\_Severity) as Average\_Severity

from sw\_road\_safety\_master

group by 1,2;

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

select label, avg(Accident\_Severity) as Average\_Severity, count(distinct Vehicle\_Type) as Total\_accidents

from sw\_road\_safety\_master

group by 1

having label like '%Motorcycle%'

order by 1;

**Project 1: Analyzing the World Population**

use demo\_database;

-- create a table name factbook

create table factbook(

country varchar(60),

area int,

birth\_rate float,

death\_rate float,

infant\_mortality\_rate float,

internet\_users int,

life\_exp\_at\_birth float,

maternal\_mortality\_rate int,

net\_migration\_rate float,

population int,

population\_growth\_rate float

);

-- Load the data into the factbook table

Load Data local Infile

"C:/Users/ranji/Downloads/cia\_factbook\_\_\_FSDA 18th Sept 2022.csv"

INTO TABLE factbook

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

IGNORE 1 ROWS;

SHOW GLOBAL VARIABLES LIKE 'local\_infile';

set global local\_infile = 1;

select \* from factbook;

-- which country has the highest population

select country, population as highest\_population from factbook

order by population desc

limit 1;

-- which country has the least number of people

select country, population from factbook

where population <> 0

order by population ASC

LIMIT 1;

-- which country is witnessing the highest population growth?

select country, population\_growth\_rate from factbook

order by population\_growth\_rate desc

limit 1;

-- which country has an extraordinary number for the population?

select country, population from factbook

order by population desc

limit 5;

-- which is the most densely populated country in the world?

select country, population from factbook

order by population desc

limit 1;