**SQL Queries :**

**DB used: Db browser for SQLite**

Create Database

CREATE DATABASE formula1;

Use the database created

USE formula1;

Create Tables

1. Create a table containing all the F1 circuits

CREATE TABLE circuits( circuitID INT, circuitRef VARCHAR(100), name VARCHAR(100), location VARCHAR(50), country VARCHAR(50), lat DECIMAL(8,4), lng DECIMAL(8,4), alt INT, url VARCHAR(1000), PRIMARY KEY(circuitID) );

1. Create a table containing all the constructor information

CREATE TABLE constructors( constructorID INT, constructorRef VARCHAR(100), name VARCHAR(100), nationality VARCHAR(100), url VARCHAR(1000), PRIMARY KEY(constructorID) );

1. Create a table containing all the constructor results

CREATE TABLE constructorResults( constructorResultsID INT, raceID INT, constructorID INT, points INT, status VARCHAR(20), PRIMARY KEY(constructorResultsID), FOREIGN KEY(constructorID) REFERENCES constructors(constructorID) );

1. Create a table containing constructor standings

CREATE TABLE constructorStandings( constructorStandingsID INT, raceID INT, constructorID INT, points INT, position INT, positionText CHAR(5), wins INT, PRIMARY KEY(constructorStandingsID), FOREIGN KEY(constructorID) REFERENCES constructors(constructorID) );

1. Create a table containing the driver information

CREATE TABLE drivers( driverID INT, driverRef VARCHAR(100), number INT, code CHAR(5), forename VARCHAR(20), surname VARCHAR(20), dob VARCHAR(20), nationality VARCHAR(50), url VARCHAR(1000), PRIMARY KEY(driverID) );

1. Create the table containing the driver standings

CREATE TABLE driverStandings( driverStandingsID INT, raceID INT, driverID INT, points INT, position INT, positionText CHAR(5), wins INT, PRIMARY KEY(driverStandingsID), UNIQUE KEY(raceID, driverID) );

1. Create a table containing the lap time information

CREATE TABLE lapTimes( raceID INT, driverID INT, lap INT, position INT, time VARCHAR(25), milliseconds INT, PRIMARY KEY(raceID, driverID, lap), FOREIGN KEY(raceID, driverID) REFERENCES driverStandings(raceID, driverID) );

1. Create the table containing pitstop information

CREATE TABLE pitStops( raceID INT, driverID INT, stop CHAR(2), lap CHAR(2), time VARCHAR(25), duration VARCHAR(25), milliseconds VARCHAR(25), PRIMARY KEY(raceID, driverID, stop), FOREIGN KEY(raceID, driverID) REFERENCES driverStandings(raceID, driverID) );

1. Create the table qualifying containing all the qualification data

CREATE TABLE qualifying( qualifyingID INT, raceID INT, driverID INT, constructorID INT, number INT, position INT, q1 VARCHAR(25), q2 VARCHAR(25), q3 VARCHAR(25), PRIMARY KEY(qualifyingID), UNIQUE KEY(raceID, driverID,constructorID) );

1. Create the table containing race information

CREATE TABLE races( raceID INT, year VARCHAR(10), round INT, circuitID INT, name VARCHAR(50), date VARCHAR(25), time VARCHAR(25), url VARCHAR(1000), PRIMARY KEY(raceID), FOREIGN KEY(circuitID) REFERENCES circuits(circuitID), FOREIGN KEY(year) REFERENCES seasons(year) );

1. Create the table containing season information

CREATE TABLE seasons( year VARCHAR(10), url VARCHAR(1000), PRIMARY KEY(year) );

1. Create the table containing status information

CREATE TABLE status( statusID INT, status VARCHAR(50), PRIMARY KEY(statusID) );

1. Create the table containing results of all the races

CREATE TABLE results( resultsID INT, raceID INT, driverID INT, constructorID INT, number INT, grid INT, position INT, positionText CHAR(5), positionOrder INT, points INT, laps INT, time VARCHAR(25), milliseconds VARCHAR(25), fastestLap INT, rank INT, fastestLapTime VARCHAR(25), fastestLapSpeed VARCHAR(25), statusID INT, PRIMARY KEY(resultsID), FOREIGN KEY(raceID) REFERENCES races(raceID), FOREIGN KEY(driverID) REFERENCES drivers(driverID), FOREIGN KEY(constructorID) REFERENCES constructors(constructorID), FOREIGN KEY(statusID) REFERENCES status(statusID), FOREIGN KEY(raceID, driverID, constructorID) REFERENCES qualifying(raceID, driverID, constructorID), FOREIGN KEY(raceID, driverID) REFERENCES driverStandings(raceID, driverID) );

**Import data:**

To import data, Navigate to the "File" menu and select "Import > Table from CSV file...". Choose the CSV file and click ok. DB Browser will create this table and populate it with the data from our CSV file