**🚗 E-VEHICLE DATA ANALYSIS USING SQL**

**🔹 STEP 1: CREATE A TABLE IN MYSQL**

1. create schema EvechileDB;

USE EVECHILEDB

1. create table evechiles(

VIN VARCHAR(20) PRIMARY KEY,

COUNTRY VARCHAR(100),

CITY VARCHAR(100),

STATE VARCHAR(10),

POSTAL\_CODE INT,

MODEL\_YEAR INT,

MAKE VARCHAR(50),

MODEL VARCHAR(100),

ELECTRIC\_VECHILE\_TYPE VARCHAR(50),

CLEAN\_ALTERNATIVE\_FUEL VARCHAR(50),

ELECTRIC\_RANGE INT,

BASE\_MSRP DECIMAL(10,2),

Legislative INT,

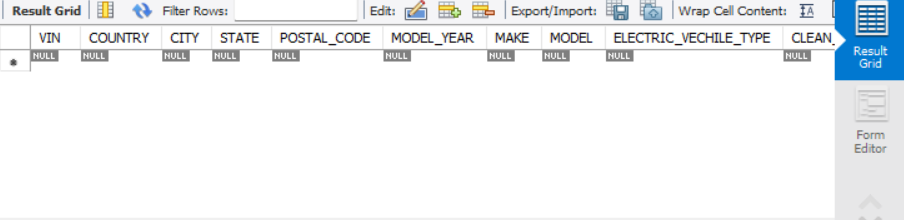
DOL\_VECHILE DECIMAL(10,2),

VECHILE\_LOCATION VARCHAR(255),

ELECTRIC\_UTILITY VARCHAR(255),

CENSUS\_TRACT DECIMAL(15,2)

);

1. SELECT \* FROM EVECHILES

**🔹 STEP 2: IMPORT DATA FROM CSV**

1. LOAD DATA LOCAL INFILE "C:\Users\Vinusha\Desktop\vincent\E-vechicle data.csv"

INTO TABLE EVECHILES

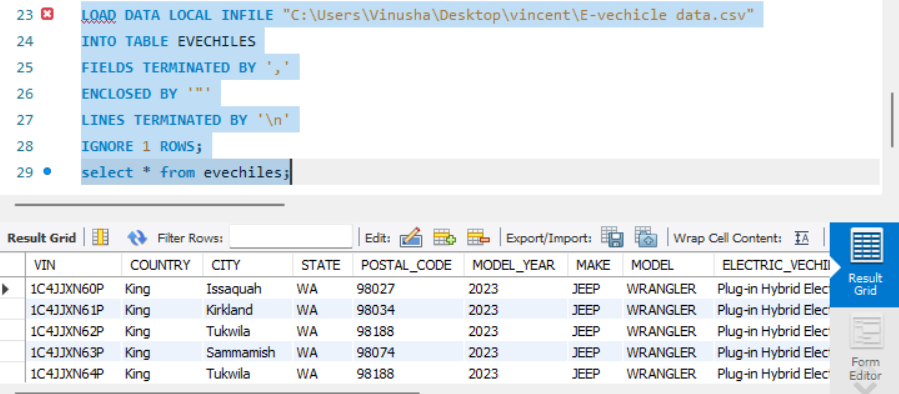
FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\n'

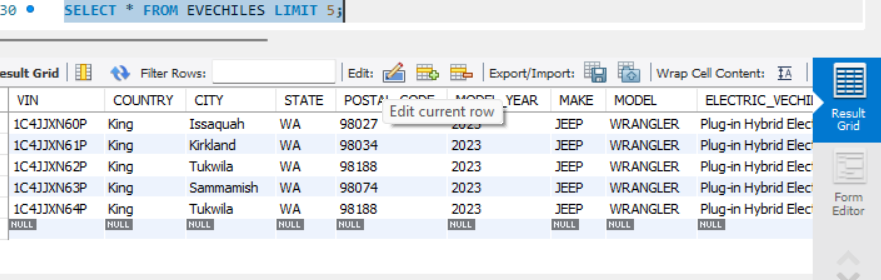
IGNORE 1 ROWS;

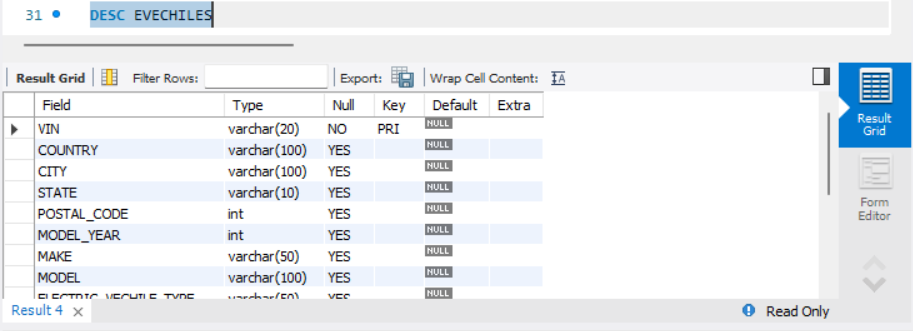
1. select \* from evechiles;



**🔹 STEP 3: VERIFY THE DATA**

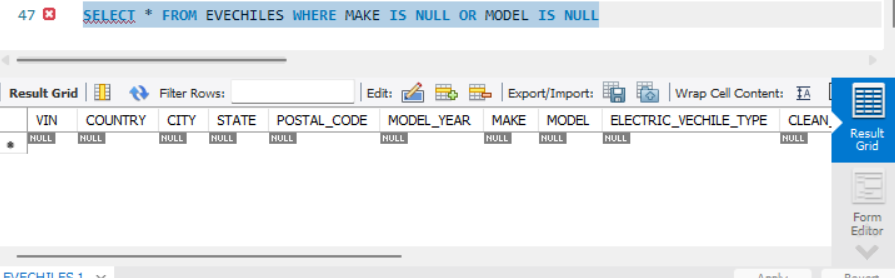
1. Check if the data is imported correctly:



1. Check column structure: 

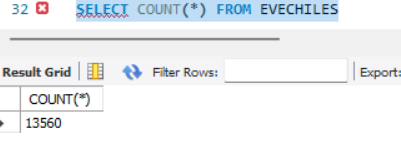
**STEP 4: DATA CLEANING & PREPARATION**

**🔹 Check for missing values:**

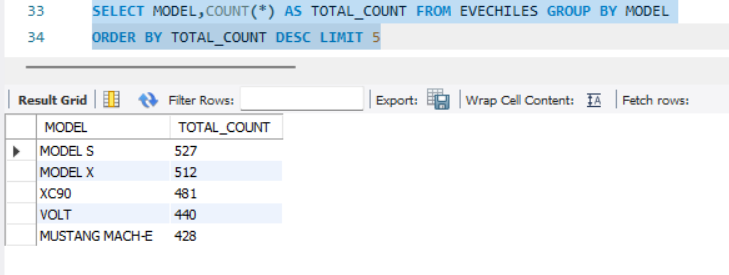
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**🔹 STEP 4: PERFORM SQL ANALYSIS**

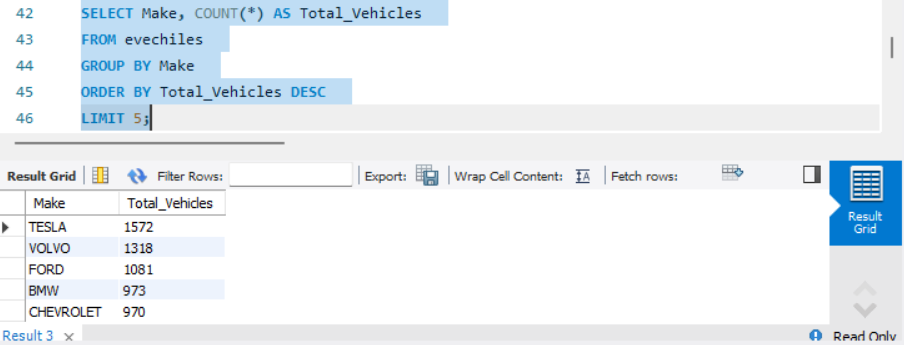
1. **Total Number of EVs in the Dataset**

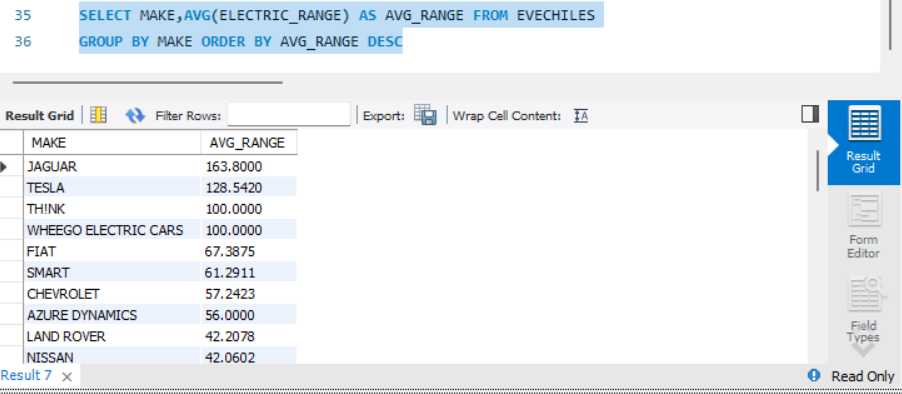


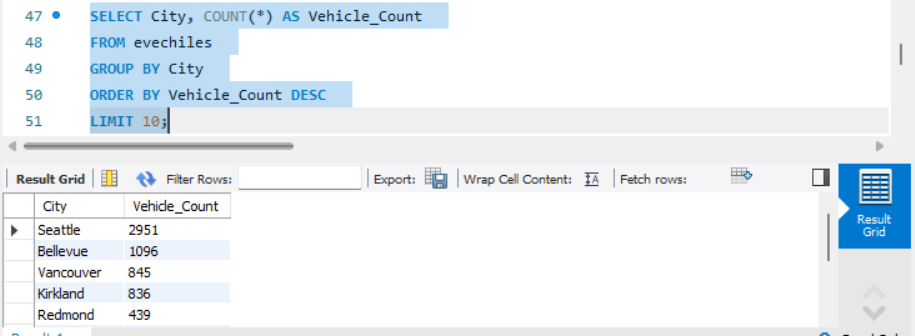
1. **Top 5 Most Common EV Models**



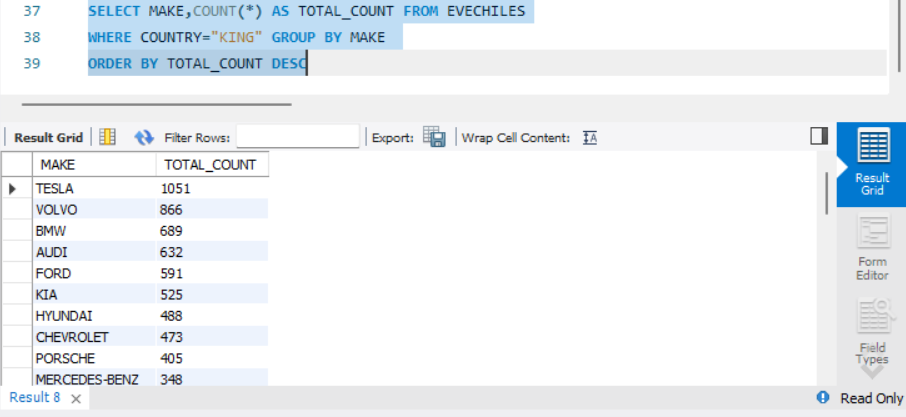
1. **Count vehicles by manufacturer:**

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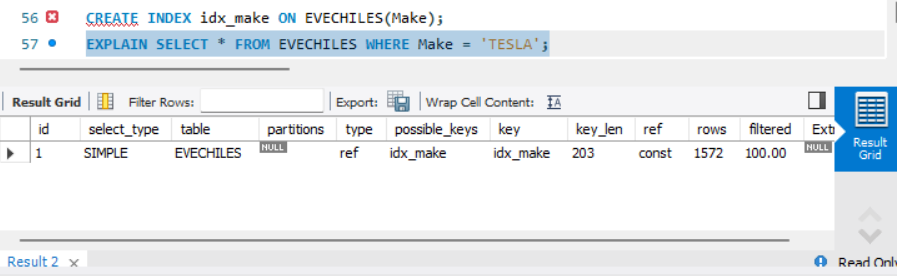
1. **Average Electric Range by Brand**
2. **Find the top cities with the most electric vehicles:**

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1. **Most Common EV Brands in a Specific County (e.g., King County)**



1. **Optimize query execution with EXPLAIN:**

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1. **EV Models with the Highest Electric Range**

