**Project Overview**

**Analysis of Car Sales**

**1. Introduction:**

The project aims to analyze a dataset containing information about car sales. This dataset encompasses various attributes such as the car's name, year of manufacture, selling price, mileage, fuel type, transmission type, owner details, and more. The analysis seeks to extract meaningful insights to understand market trends, pricing dynamics, and consumer preferences within the automotive industry.

**2. Dataset Description:**

* The dataset consists of a list of vehicles along with their specifications and sales details.
* Key attributes include the name of the car, year of manufacture, selling price, mileage, fuel type, transmission type, owner details, engine specifications, torque, and seating capacity.
* The dataset covers a range of car models, fuel types (petrol, diesel, electric), transmission types (manual, automatic), and owner statuses.

**3. Objectives:**

* To understand the distribution of car sales across different years, fuel types, and transmission types.
* To analyze the relationship between selling price and various attributes such as mileage, engine specifications, and owner details.
* To identify trends in the market, including the popularity of certain car models, fuel types, and transmission types.
* To explore factors influencing the selling price of cars and identify potential predictors.
* To provide insights that can be utilized for strategic decision-making by stakeholders in the automotive industry, including manufacturers, dealerships, and consumers.

#CREATE A DATABASE

CREATE DATABASE CARS;

# USE DATABAE

USE CARS;

1. READ THE CAR DATA

SELECT \* FROM CAR\_DATA;

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1. TOTAL CARS

SELECT COUNT(\*) FROM CAR\_DATA;

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1. HOW MANY CARS WILL BE AVAILABE IN 2014

SELECT COUNT(\*) FROM CAR\_DATA WHERE YEAR = "2014";

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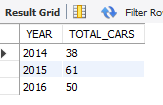
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1. HOW MANY CARS IS AVAILABLE IN 2014,2015,2016

SELECT YEAR, COUNT(\*)AS TOTAL\_CARS FROM CAR\_DATA

WHERE YEAR IN (2014,2015,2016)

GROUP BY YEAR;



5. CLIENT ASKED TO PRINT THE TOTAL OF ALL CARS BY YEAR I DONT WANT ALL DETAILS

SELECT YEAR, COUNT(\*)

FROM CAR\_DATA GROUP BY YEAR;

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6. CLIENT ASKED CAR DEALER AGENT HOW MANY DIESEL CARS WILL BE THERE IN 2024

SELECT COUNT(\*) FROM CAR\_DATA

WHERE YEAR = 2014 AND FUEL\_TYPE = "DIESEL";

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7. CLIENT ASKED CAR DEALER AGENT HOW MANY DIESEL CARS WILL BE THERE IN 2020

SELECT COUNT(\*)AS TOTAL\_CARS FROM CAR\_DATA

WHERE YEAR = 2014 AND FUEL\_TYPE = "PETROL";

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8. MANAGER ASKED TOTAL CARS ALL YEAR FUEL TYPE (DIESEL,PETROL,CNG)

SELECT YEAR,FUEL\_TYPE, COUNT(\*) AS TOTAL\_CARS FROM CAR\_DATA

WHERE FUEL\_TYPE IN ("DIESEL","PETROL","CNG")

GROUP BY YEAR,FUEL\_TYPE;

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9. MANAGER SAID THERE WHERE MORE THAN 50 CARS IN A GIVEN YEAR, WHICH YEAR HAD MORE THAN 50 CARS

SELECT YEAR, COUNT(\*) FROM CAR\_DATA GROUP BY YEAR HAVING COUNT(\*) > 50;

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10. MANAGER SAID THERE WHERE LESS THAN 100 CARS IN A GIVEN YEAR, WHICH YEAR HAD LESS THAN 50 CARS

SELECT YEAR, COUNT(\*) FROM CAR\_DATA GROUP BY YEAR HAVING COUNT(\*) < 50;

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11. MANAGER SAID TO EMPLOYEE ALL CARS COUNT DETAILS BETWEEN 2015 AND 2023,

SELECT COUNT(\*) FROM CAR\_DATA WHERE YEAR BETWEEN 2015 AND 2023;

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12. THE MANAGER SAID TO THE EMPLOYEE ALL CARS DETAILS BETWEEN 2015 AND 2023 NEED COMPLETE LIST

SELECT \* FROM CAR\_DATA WHERE YEAR BETWEEN 2015 AND 2023;

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13. FIND THE AVERAGE SELLING PRICE AND TOTAL MILEAGE DRIVEN FOR EACH COMBINATION OF FUEL TYPE AND TRANSMISSION

SELECT FUEL\_TYPE, TRANSMISSION,

AVG(SELLING\_PRICE) AS AVG\_SELLING\_PRICE,

SUM(KMS\_DRIVEN) AS TOTAL\_MILEAGE

FROM CAR\_DATA

GROUP BY FUEL\_TYPE, TRANSMISSION;

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14. IDENTIFY THE TOP 5 CARS WITH THE HIGHEST SELLING PRICE

SELECT CAR\_NAME, YEAR, SELLING\_PRICE

FROM CAR\_DATA

ORDER BY SELLING\_PRICE

DESC LIMIT 5;

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15. CALCULATE THE TOTAL NUMBER OF CARS SOLD AND THE AVERAGE SELLING PRICE FOR EACH YEAR:

SELECT YEAR, COUNT(\*) AS NUM\_VEHICLES\_SOLD,

AVG(SELLING\_PRICE) AS AVG\_SELLING\_PRICE

FROM CAR\_DATA GROUP BY YEAR;

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