CarDekho

Dataset Analysis

INTRODUCTION

This report presents a comprehensive analysis of data sourced from the *Car Dekho* app. The primary objective of this analysis is to uncover key insights, trends, and patterns within the dataset, providing valuable information for both consumers and industry stakeholders

OBJECTIVE

1. Data collection:

By acquiring a well-structured dataset. This dataset included details such as car name, year, selling price, km driven, fuel, seller type, transmission, owner, mileage, engine, max power, torque, seats. The data was stored in a relational database.

2. Data Cleaning and Preprocessing:

Performed data cleaning tasks to handle missing values, duplicate records, and outliers, ensuring the dataset's integrity.

3. SQL Queries:

Designed and executed SQL queries to extract relevant information from the database. This involved a range of SQL operations, including SELECT, GROUP BY, and aggregation functions.

DATA OVERVIEW

Field	Type
Name	text
year	int
selling_price	int
km_driven	int
fuel	text
seller_type	text
transmission	text
owner	text
mileage	int
engine	int
max_power	float
torque	float
seats	int
company	varchar(100)
mileage_data	varchar(50)
km_driveninfo	varchar(50)
current_date1	date

Questions:

1. **To find the most popular car company on car dekho**
   select company,count(*) as count1 from car_table group by company order by count1 desc limit 1;

2. **To find the number of cars for each fuel type**
   select fuel,count(*) from car_table group by fuel order by count(*) desc;

3. **To determine the average selling price of cars with single, second and third ownership**
   select owner,avg(selling_price) from car_table group by owner;

4. **To identify the company that produces cars with the best mileage**
   select company,count(company)from car_table where mileage_data='avg'group by company order by count(company) desc limit 1;

5. **To find out which type of seller is most common**
   select seller_type,count(*) from car_table group by seller_type;

6. **To determine the average kilometers driven by cars with diffreant fuel types**
   select fuel,avg(km_driven)from car_table group by fuel order by avg(km_driven) desc;

7. **To determine the average mileage of automatic versus manual cars**

   select transmission,avg(mileage)from car_table group by transmission order by avg(mileage) desc;

8. **To find number of cars in different price segment**

   alter table car_table add column price_range varchar(50);
   update car_table set price_range=case when
   selling_price<200000 then 'budget cars'
   when selling_price>20000 and selling_price<700000
   then 'mid range'
   else 'luxury cars' end ;
   select price_range,count(*) from car_table group by price_range;

9. **To find the number of cars in different age group**

   alter table car_table add column age_range varchar(50) ;
   update car_table set age_range=case when year<2012
   then 'old'
   when year>2012 and year<2020 then 'mid'
   else 'like new' end ;
   select age_range,count(*) from car_table group by age_range;

10. **To find which ownership is common**

    select owner,count(*) from car_table group by owner order by count(*) desc limit 1 ;

CONCLUSION

The SQL project for the Car Dekho app aims to convert raw car data into actionable insights, enabling the app's management to make data-driven decisions. This will help improve operational efficiency, boost customer satisfaction, and increase profitability.

1. **Most popular car**
   Most popular car company is <u>Maruti</u>. This information helps consumers identify the car company with the best resale value, allowing them to quickly choose the right company and car model.

2. **Number of cars with each fuel type**
   Diesel - 3658
   Petrol - 2977
   CNG - 51
   LPG - 35
   Electric 1
   This data helps the CarDekho app understand the percentage of cars with different fuel types, enabling them to effectively convey this information to customers.

3. **Average selling price of cars with different ownership**
   Test Drive Car – 44,03,800
   First Owner – 6,23,523
   Second Owner – 3,95,166
   Test Drive Car – 44,03,800
   Third Owner – 2,86,885
   Fourth & Above Owner – 2,32,503
   This data helps understand that car prices generally decrease as the number of previous owners increases.

4. To identify the car company that produces the most cars with top mileage

Cars manufactured by <u>Maruti</u> offer the highest mileage. This data helps customers to choose a vehicle quick

5. Most common seller

<u>Individual</u> sellers are the most common sellers in the site. This data helps the app management in many ways

6. The average kilometres driven by cars with different fuel types

LPG   88856.6857

Diesel   88320.8122

CNG   66483.7451

Petrol   54667.5321

Electric 10000.0000

7. The average mileage of automatic versus manual cars

Manual – 19

Automatic – 15

This data helps customers choose between an automatic or manual car based on their average mileage

8. Cars in different price segments

mid range   4245

luxury cars   1411

budget cars   1066

This data is useful for both the CarDekho app and its customers to find cars in different price ranges.

9. Sorting cars in different year categary

2020 and above   - 658
Between 2020 and 2012   - 4261
2012 and below   - 1803
This data helps to understand that people are trying to sell cars that are 5-10 years old

10.   Most common ownership seen in market

Single-owner cars are the most frequently seen on the app.