***Car Dekho***

**Dataset Analysis**

**INTRODUCTION**

* In the realm of automotive data analysis, hidden insights in car data tables often refer to valuable information hat isn’t immediately obvious but can significantly impact decision-making and operation efficiency. 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. By leveragin advanced data analysis techniques and tools ,stakeholders can gain a deeper advantage of vehicle performance, improve maintenance strategies and enhance overall operation efficiency.

**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.

1. **Data Cleaning and Preprocessing:**

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

1. **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;

1. **To find the number of cars for each fuel type**

select fuel,count(\*) from car\_table group by fuel order by count(\*) desc;

1. **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;

1. **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;

1. **To find out which type of seller is most common**

select seller\_type,count(\*) from car\_table group by seller\_type;

1. **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;

1. **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;

**CONCLUSION**

This analysis provides insights into the car table, including the most popular brand, fuel type, features, and other patterns. These findings can help optimize car sales and customer satisfaction by identifying trends and preferences in the data. 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 Maruti. This information helps consumers identify the car company with the best resale value, allowing them to quickly choose the right company and car model.

1. **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.

1. **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.

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

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

1. **Most common seller**

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

|  |  |
| --- | --- |
| LPG | 88856.6857 |
| Diesel | 88320.8122 |
| CNG | 66483.7451 |
| Petrol | 54667.5321 |
| Electric | 10000.0000 |

1. **The average kilometres driven by cars with different fuel types**
2. **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

1. **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.

1. **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

1. **Most common ownership seen in market**

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