REPORT:

CAR DEKHO DATASET ANALYSIS

SUBMITTED BY:

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INTRODUCTION

My MySQL project titled “CAR DEKHO” which is the Analysis of second hand car sales with SQL .This report shows the total sales for each customer in each region. The report is sorted by total sales in descending order, so the customers with the highest sales are shown first. The report includes the following columns: Region Name, Customer Name, and Total Sales.

AIM

The primary goal of this project is to analyze used car sales demands to uncover insights that can help improve the customer satisfication and increase revenue. Here we analyse all the required data and to get a better analysis output.

OBJECTIVE

1.Data Collection:

By acquiring a well-structured dataset. This dataset included details such as selling price,seller type,owner,max\_power,torque,fuel and more. 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, MAX(),MIN(),AVG(),UPDATE,ALTER,WILD CARD OPERATOR,DUPLICATES, GROUP BY, and aggregation functions.

4. Exploratory Data Analysis (EDA):

I delved into the dataset to discover trends, patterns, and key statistics related to car features, pricing, and more.

Key Insights:

1. Total Cars: The project provides the overall count of cars in the dataset.

2. 2023 Availability: It shows how many cars are available in the year 2023.

3. Yearly Counts: The analysis breaks down car counts for the years 2020, 2021, and 2022.

4. Annual Trends: It presents a yearly breakdown of car numbers across all years.

5. Diesel Cars (2020): Identifies the count of diesel cars specifically in 2020.

6. Petrol Cars (2020): Calculates the number of petrol cars in the year 2020.

7. Fuel Distribution: Displays the distribution of cars by fuel type for different years.

8. High Demand Years: Highlights the years with more than 100 cars in the dataset.

9. Total Cars (2015-2023): Calculates the overall count of cars between 2015 and 2023.

10. Detailed Data (2015-2023): Provides comprehensive information about cars available from 2015 to 2023.

11.Fuel type preference: Petrol cars are the most popular, accounting for over 60% of total sales, followed by diesel cars.

12. Car variant preference: The top-selling car variants are from the hatchback and sedan segments.

Functions Used in the Project:

The SQL queries in the project utilize various SQL functions to extract and manipulate data. Some of the functions used include:

1.COUNT: Used to count the number of records (e.g., cars).

2.SUM: Not explicitly used but can be used to calculate the total of numeric values.

3.AVG: Not explicitly used but can be used to calculate the average of numeric values.

4.WHERE: Used to filter data based on specified conditions.

5.GROUP BY: Used to group data by specific columns for aggregation.

6.HAVING: Used with GROUP BY to filter aggregated results.

7.BETWEEN: Used to specify a range of values (e.g., years between 2015 and 2023).

8.CONCAT: Used to concat first\_name and last\_name of customers to get full\_name of customers.

9.MAX and MIN: Here we used to find maximum and minimum MILEAGE,YEAR,SELLING PRICE and more.

10.DISTINCT: Used to get distinct values like FUEL,GENDER,etc.

DATA ANALYSIS

1.Descriptive Analysis:

Summarize data to understand the overall trends, peak periods, average Mileage,owners,selling price and most transmission types etc.

2.Trend Analysis:

Identify patterns over time, such as seasonal demand variations and selling lead times.

3.Customer Segmentation:

Group customers based on demographics or buying behaviors to tailor marketing strategies.

CONCLUSION

The top-selling cars on CarDekho are primarily from popular brands such as Maruti Suzuki, Hyundai, and Honda. The Maruti Suzuki Swift is the best-selling car, followed closely by the Hyundai Grand i10 and Honda City. The report also shows that the majority of sales come from the North and West regions, indicating a strong demand for cars in these areas.