CAPSTONE PROJECT 1
Power BI Dashboarding project proposal
by Srikanth Marepally PGA 36

1. Executive Summary:

This project aims to analyze vehicle data to provide insights and develop interactive dashboards using Power BI. The dashboards will focus on key performance indicators, providing a visual representation of critical metrics related to vehicle pricing and other attributes. This helps the car dealerships in understanding the insights, patterns and trends regarding how the price of the car is affected by various factors, aiding them in making decisions driven by data.

2. Problem Statement:

Background: There is large amount of data related to automobile sales, this data can only be useful if we gain insights from it.

Objective: The objective of this project is to clean, pre process the data and to create interactive and insightful dashboards that facilitate in making data driven decisions.

Scope: The scope of this project is to be helpful to the car dealerships in making important decisions based on the insights that they gain from this data

3. Data Sources:

Primary Data: The data contains columns related to Brand, Year, Condition, Mileage, Fuel Type, etc

4. Methodology:

Data Integration:

-The data is first integrated with python in which a major part of pre processing can be done.

-After the data is cleaned it can be integrated with power bi to make interactive and insightful dashboards so the understanding of the data can be easy

Dashboard Design: To identify key metrics and design visually appealing, intuitive and user-friendly dashboards that provide insightful visual representations of the data.

Interactivity: Enable filtering, slicing, and drill-down capabilities for in-depth analysis and trend exploration on various attributes such as make, year, condition, etc.

5. Expected Outcomes:

- A comprehensive set of cleaned and preprocessed vehicle dataset.
- Interactive dashboards in Power BI showcasing key insights like average prices for various categories such as make, fuel type, condition, etc
- Creating dashboards that are simple to understand so it makes it easier for the car dealerships to make data driven decisions.

6. Tools and Technologies:

- Excel: For initial and simple data cleaning.
- Python: For advanced data cleaning, preprocessing,
- Power BI: For data analysis and dashboard creation.

7. Risks and Challenges:

- To clean the messy data because Incomplete or inaccurate data entries may affect analysis.
- To organise and arrange the data in a proper order.
- To create interactive dashboards that can be easily understood by anyone.

8. Conclusion:

This project aims to transform raw data into meaningful insights through a series of data cleaning, preprocessing, and visualization. It shall also create visually engaging and informative dashboards, facilitating quicker and more informed decision-making. The dashboards will show all the trends, insights, patterns that you can get from the data, ensuring a user-friendly experience that promotes a data-driven decision making.