Project Design Phase-I

Date	03 Nov 2022
Team ID	PNT2022TMID45803
Project Name	CAR RESALES VALUE PREDICTION
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	➢ Sales prediction is the current numerous trend in which all the business companies thrive and it also aids the organization or concern in determining the future goals for it and its plan and procedure to achieve it. ➢ Resales of cars almost occupy a major part in every sales economy. ➢ In that regard various factors like registration year, engine condition, company service record, spare parts condition, tyre condition, car body condition, kilometers covered, Interior look, color, mileage, number of owners, battery condition are taken into consideration before buying it along with engine condition and insurance. ➢ The predication using the factors would suggest the final product to be brought. ➢ But these data may be inaccurate at times and there is a need of a proper algorithm that will provide a result with good accuracy rate.
2.	Idea / Solution description	➢ The idea starts with login page where the user initially directed to the login page with some authenticated credentials. ➢ Then the user is been taken to the dataset uploading page where the data is read with the integrated flask. ➢ Flask is used as middleware for integrating frontend and backend. ➢ This application had the features of extracting the data , cleaning the data and perform some EDA for accurate predictions. ➢ Then the processed data is split into train and test the dataset is trained based on any of the machine learning algorithm.The model that we are using is time series forecasting.

		➢ Then the trained dataset is predicted based on the user needs like model, price, design, kilometres covered, Interior look, colour, mileage, number of owners and many features. ➢ Then the predicted result is shown in the interactive dashboard.
3.	Novelty / Uniqueness	➢ Look at similarities in other features such as pricing, innovation, and seasonality for example. ➢ Consumer behavior changes, it's a fact. So for better accuracy select a more recently added product when possible. ➢ You can use multiple reference products to get the best average and the novelty sales estimates will be based on features from all of them using the average.
4.	Social Impact / Customer Satisfaction	➢ Sales forecasting helps you attain this revenue efficiency by offering insight into the likely behavior of your most valuable customers. ➢ You can predict future sales, as well as improve pricing, advertising, and product development.
5.	Scalability of the Solution	➢ Here we are using time series analysis so, When historical data for a product or product line is available and patterns are obvious, organisations typically employ the time series analysis technique to demand forecasting. ➢ A time series analysis can help you detect seasonal variations in demand, cyclical patterns, and major sales trends. ➢ The time series analysis approach works best for well-established organisations with several years of data to work with and very steady trend patterns.