

## Project Design Phase-I

Date	31 October 2022
Team ID	PNT2022TMID29578
Project Name	PROJECT- CAR RESALE VALUE PREDICTION
Maximum Marks	2 Marks

### Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"><li>○ 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.</li><li>○ Resales of cars almost occupy a major part in every sales economy.</li><li>○ 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.</li><li>○ The predication using the factors would suggest the final product to be brought.</li><li>○ 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.</li></ul>

2.	Idea / Solution description	<ul style="list-style-type: none"> <li>○ The overall proposed idea is to predict the car resale value and show it to the required people.</li> <li>○ This idea can be implemented and could be presented to the customer. This involves two phases.</li> <li>○ One phase is collecting the dataset for training the car resale value prediction model.</li> <li>○ Testing the car resale value prediction model.</li> <li>○ The second phase involves creating a website (front end) for presenting the entire solution as a customized GUI so that this would be very useful for the user to utilize this solution</li> </ul>
		<ul style="list-style-type: none"> <li>○ The user will be asked to enter the details for prediction like model, price, design, kilometres covered, Interior look, colour.</li> <li>○ If user clicks the predict option, the predicted resale value will be displayed in the website.</li> </ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>○ Consumer behavior changes, it's a fact. So for better accuracy select a more recently added product when possible.</li> <li>○ 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.</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>○ Sales forecasting helps you attain this revenue efficiency by offering insight into the likely behavior of your most valuable customers.</li> <li>○ You can predict future sales, as well as improve pricing, advertising, and product development.</li> </ul>

5.	Scalability of the Solution	<ul style="list-style-type: none"> <li>○ 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.</li> <li>○ A time series analysis can help you detect seasonal variations in demand, cyclical patterns, and major sales trends.</li> <li>○ The time series analysis approach works best for well-established organisations with several years of data to work with and very steady trend patterns.</li> </ul>
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