

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID16853
Project Name	Car Resale Value Prediction
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	With Difficult economic conditions, it is likely that sales of second-hand imported cars and used cars will increase in many developed countries, it is common to lease a car rather than buying it outright. After the lease a period is over, the buyer has the possibility to buy the car at its residual value, i.e. its expected resale value. Thus, it is of commercial interest to sellers/financers to be able to predict the salvage value of cars with accuracy.
2.	Idea / Solution description	In order to predict the resale value of the car, we proposed an intelligent, flexible, and effective system that is based on using regression algorithms. Considering the main factors which would affect the resale of a vehicle a regression model is to be built that would give the nearest resale value of the vehicle. We will be using various regression algorithms and algorithm with best accuracy will be taken as a solution, then it will be integrated to the web-based application where the user is notified with the status of his product.
3.	Novelty / Uniqueness	<ul style="list-style-type: none">• A loss function to be optimized• A weak learner to make predictions• An additive model to add weak learners to make the loss functions.• Easy to predict by using regression model.
4.	Social Impact / Customer Satisfaction	To be able to predict resale cars market value can help both layers and sellers. Used car sellers: They are one of the biggest target groups that can be interested in results of this study. If used sellers better understand what makes a car desirable, what the important features are for a used car, then they may consider this knowledge and offer a better service.

		<p>Online pricing services: There are websites that offers an estimate value of a car. They may have a good prediction model. However, having a second model may help them to give a better prediction to their users. Therefore, the model developed in this study may help online web services that tells a used car's market value.</p> <p>Individuals: There are lots of individuals who are interested in the used car market at some points in their life because they wanted to sell their car or buy a used car. In this process, it's a big corner to pay too much or sell less then it's market value</p>
5.	Business Model (Revenue Model)	<p>Due to the high pricing of new cars along with the incapability of customers to invest in them, second-hand car sales are on a global increase. A second-hand car price prediction system was required to effectively determine the worthiness of the car using a variety of features. Even though there are websites that offer similar service, their prediction method may not be the best. Besides, different models and systems may contribute to predicting power for a used car's actual market value. It is important to know their actual market value while both buying and selling</p>
6.	Scalability of the Solution	<p>Yes, the solution is scalability. It gives 95% accuracy for the solution. It is scalable to any number of data set. In business ways this project have capacity to grow to meet increased demand.</p>