Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID43743
Project Name	CAR RESALE VALUE PREDICTION
Maximum Marks	2 Marks

PROPOSED SOLUTION:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Any person who is going to buy a car for the first time in his/her life would have not much idea about the car. If a person is going to buy a used car, then the person should conduct some tests on that car for its effectiveness. Manual tests may not be effective. This is where the proposed solution is implemented, conducting a set of tasks which are trained using machine learning concepts, The project should take parameters related to used car as inputs and enable the customers to make decisions by their own
2.	Idea / Solution description	The retail price of a new car, excluding extra equipment, is the same for all vehicles of the same make, model, and year. The producer determines this cost. However, the price of used cars is determined by supply and demand. Additionally, there are other characteristics of second-hand cars that affect the price. These distinguish between cars that may have had a similar retail price by taking into account their condition, mileage, and repair history.
3.	Novelty / Uniqueness	Utilizing the built programme, used vehicle price may quickly and accurately assess a car's value on its own. Users can enter the car model, miles travelled, type of car, and the number of submitted car photographs. Based on the data, the car price will be forecasted.
4.	Social Impact / Customer Satisfaction	Once this idea is implemented, let it be anyone might be normal person looking for his household or a dealer who is a reseller of cars or a cab driver could get accurate quote of the vehicle he/she is going to buy just by passing all the relevant information that are needed to analyse the value of a car. Just by Machine learning's understanding as it relates to

		automobile valuations and other comparable price prediction issues will grow because of this. The purpose of this effort is to address the research questions. They all involve contrasting several machine learning (ML) price prediction methods. This will be done by collecting and generating a dataset that will allow for fair training and comparison of all the algorithms. For the same dataset to be utilised for all the methods, they must be similar enough. Additionally, if the adjustments do not improve the performance of the other models, no significant optimizations of the dataset will be made. It is outside the purview of this work to maximise the price prediction performance of any one algorithm in ways that do not provide improved comparisons.
5.	Business Model (Revenue Model)	This implementation helps in customers save a lot of money as the customer directly deals with the seller and is able to get the exact quote without the help of any third person like dealer or platforms like CARS24. A Business model is a plan that outlines how a new company will make money from its regular business operations and how it will cover its operational costs and expenses in the desired format.
6.	Scalability of the Solution	As the model developed is able to predict the resale value of an used by collecting some information about the car. It gives a 90% accurate result. The scalability of the model is very high because the developed model could give the quote for any type of car. The best parameters were chosen by trial and error as the models were being developed, and the cache model was then implemented with the settings that produced the best performance. All of the models approximated geometric appreciation, which means that regardless of the age of the vehicle, a fixed percentage of value is lost year.