**Project Design Phase-I**

**Proposed Solution**

|  |  |
| --- | --- |
| Date | 24 September 2022 |
| Team ID | PNT2022TMID00425 |
| Project Name | Project – Car Resale Value Prediction |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Accurately predict a used car’s price based on its features, to make informed purchases. |
|  | Idea / Solution description | 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 value 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 algorithms with the best accuracy will be taken as a solution, then it will be integrated into the web-based application where the user is notified of the status of his/her product. |
|  | Novelty / Uniqueness | This project proposed a scalable framework for used car price prediction using data mining and machine learning approaches. An efficient machine-learning model is built by training, testing, and evaluating five machine-learning regressors. The results of our tests were quantified in terms of the R2 score of our predictions. The R2 score is a statistical measure of how close the data are to the fitted regression line. |
|  | Social Impact / Customer Satisfaction | People can predict the price of used cars with better accuracy. They can provide their preferred features into consideration with the help of a user-friendly interface. |
|  | Business Model (Revenue Model) | It is cost-free as it is a Software as Service Platform. People need not spend money to detect the car’s resale value. |
|  | Scalability of the Solution | Better execution in accuracy, sensitivity, and specificity as well as in system design flexibility. |