Project Design Phase-I
Proposed Solution Template

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Project Name	Car Resale Value Prediction

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)	Car resale value prediction is very important in this modern period where everyone owns a car.Many people are ready to sell their cars once they find a new model or once their car gets old. But the problem Is that they do not know the exact price of their car. Many just approximately quote a price and they just complete a deal, it is either a loss for the seller or a loss for the buyer. This model brings a solution to it, this model helps in predicting the exact or the most appropriate price for the vehicle so that it is not a loss for the seller as well as the buyer.
2.	Idea / Solution description	● Almost all the existing car details and their most common type of selling details are stored in a csv format. ● This data is then loaded, preprocessed in order to remove null values, segregate the dependent and independent variables, encode the needed columns, create analysis maps, split the data into training and testing data, choose the model which can suit this problem, train the model with the training data, test the accuracy with the test data against predicted data and save the model to integrate it with a web app. ● A web app is built which renders a form for the user to enter the attributes.The saved model is loaded and the entered values are fed into the loaded model and the predicted results are returned to the user. ● The model is then deployed into the cloud for the web app to request from the deployed model.

3.	Novelty / Uniqueness	● The seller must add all the details about the vehicle such as kilometers driven , year of manufacture, model , brand etc, and add pictures of the car. ● Most of the vehicle service centers have a tool that estimates the amount of life remaining in a tire until it completely wears out, so in this web application it is recommended for the sellers to also mention those percentages and submit a copy of their last 1 year service history to give the buyer a clear idea on the condition of the car as well as to get the most appropriate price for their vehicle.
4.	Social Impact / Customer Satisfaction	● Personalize the UI experience ● Improves accurate result as expected ● Cloud deployed Machine Learning Model ● Accurate prediction at good time complexity.
5.	Business Model (Revenue Model)	● Solutions prospects of improvement ● Suits for better saving of involvements ● Economical Development ● Easy interface
6.	Scalability of the Solution	Since the machine learning model is saved and deployed in a cloud environment the app is fast to response to user's requests or queries or to accept multiple user submission of the details of their vehicles and predict the result and return the response to the users.The web app is deployed in a auto scaling environment.