Project Design Phase-I
Proposed Solution Template

Date	13th November 2023
Team ID	PNT2022TMIDxxxxxx Team-592951
Project Name	Car Purchase Price 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)	The problem is to predict car purchases based on customer data, leveraging features such as age, income, and historical purchase patterns. The goal is to provide potential buyers with an accurate estimation of their likelihood to make a purchase, guiding their decision-making process.
2.	Idea / Solution description	Our solution involves developing an innovative machine learning model that utilizes advanced algorithms and thorough data preprocessing to achieve high predictive accuracy. The model will be integrated into a user-friendly interface, allowing users to input their demographics and

		receive precise purchase likelihoods. This application aims to revolutionize the automotive industry by offering insights for tailored marketing strategies, enhancing customer experiences, and facilitating informed choices.
3.	Novelty / Uniqueness	The novelty lies in the meticulous training and feature engineering that result in a high accuracy rate, ensuring dependable predictions. The integration of this model into a user-friendly interface sets it apart, providing a seamless experience for users to access and utilize the predictions for their decision-making.
4.	Social Impact / Customer Satisfaction	The solution enhances customer experiences by providing valuable insights into their likelihood to make a car purchase. This, in turn, empowers users to make informed choices and allows automotive businesses to tailor their marketing strategies for more efficient and targeted customer engagement. Ultimately, the solution contributes to overall customer satisfaction by improving the car buying process.
5.	Business Model (Revenue Model)	The business model involves offering the machine learning-based car purchase prediction as a service. Potential revenue streams include subscription-based access to the prediction platform for individual users, as

		well as partnerships with automotive businesses for enterprise-level solutions. Additional revenue can be generated through data analytics and insights provided to businesses for optimizing their marketing strategies
6.	Scalability of the Solution	The solution is designed with scalability in mind, allowing it to handle a growing number of users and increasing data volumes. The use of advanced machine learning algorithms and optimization techniques ensures that the system can scale horizontally to meet the demands of a larger user base. Cloud-based deployment and continuous monitoring contribute to the scalability of the overall solution.