## **Project Design Phase-I Solution Architecture**

Date	22 October 2023
Team ID	TMID 593136
Project Name	Project - Car Purchase Prediction Using ML
Maximum Marks	4 Marks

## **Solution Architecture:**

<u>Problem Statement:</u> Predict if a user purchases a car based on the parameter present in the dataset <u>Tech Solution</u>: use supervised machine learning. Support vector machines, decision trees, logistic regression, and random forests are examples of candidate algorithms.

<u>Structure</u>: The software comprises components for data collection, data preprocessing, model development, model evaluation, a user interface and deployment.

**Features:** The program should be able to take user inputs and produce predictions. It should also be scalable, secure, and intuitive to use.

**Behavior:** The software predicts car purchases based on user-provided data.

## **Specifications for Solution Architecture**

Data Collection: Collect the data and store it in form of CSV.

**Model Development:** Develop an ML model based on the required output, here we need a yes or no output, so we can use methods such as DecisionTree or Random Forests for our binary classification.

