Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID34868
Project Name	Car Resale Value Prediction
Maximum Marks	4 Marks

Technical Architecture:

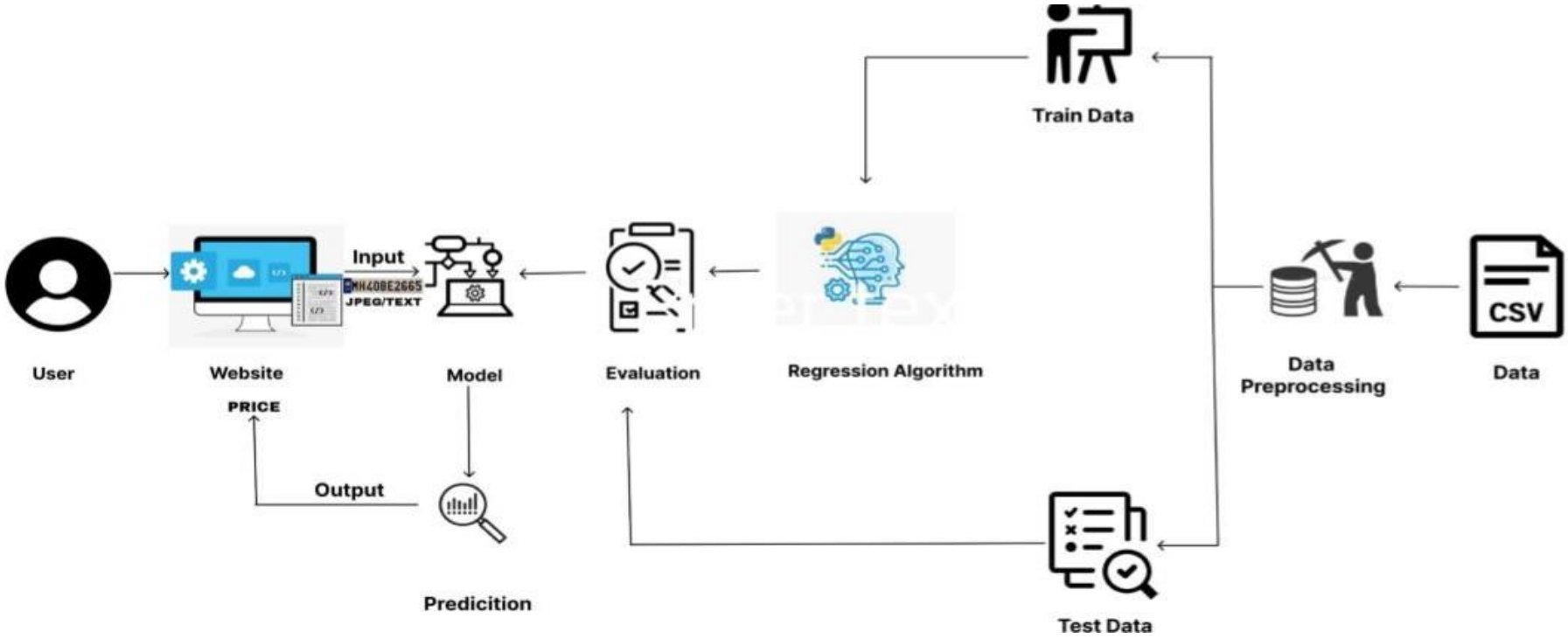

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User can enter their details of the car .Then click submit button.The collected details will be processed and the predicted price by the system is displayed in the user interface.	HTML, CSS, Python
2.	Data Preprocessing	The details in the dataset is done through steps such as data reduction, data quality assessment , data transformation,data cleaning using the python libraries such as numpy ,pandas.	numpy,pandas
3.	Data visualizations	Dataset is performed through visualization techniques to understand the trends ,outliers and patterns about data by using the matplotlib, seaborn of python libraries.	matplotlib,seaborn

4.	Machine learning Model	Regression machine learning algorithms is implemented on the dataset using the tools of scikit-learn python library.	Scikit learn
4.	Database	NoSQL databases is helpful in store data both structured and unstructured fotmats such as csv formats.	NoSQL Database
5.	Web framework	Python flask is a web framework used for integrating the user interface with the Machine learning model	Python flask

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	The numpy and pandas are used for applying data preprocessing techniques on dataset. The Matplotlib and seaborn are used for applying data visualization techniques on dataset	numpy, pandas, Matplotlib, seaborn, scikit-learn
2.	Scalable Architecture	The System is scalable enough to store the data. In future if the cars parameters used for the price prediction changes it will be updated on the model	Machine learning model

3.	Availability	The deployment of the System is in cloud environment, so the System is available everywhere and anyone with a device and internet can access it.	IBM cloud
4.	Performance	The performance of the System mostly depend upon the machine learning model builded. The user data is tested with the builded model and get prediction price to the user	Machine learning Model