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

Date	03 November 2023
Team ID	592694
Project Name	Project - Car Purchase Prediction.
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2:

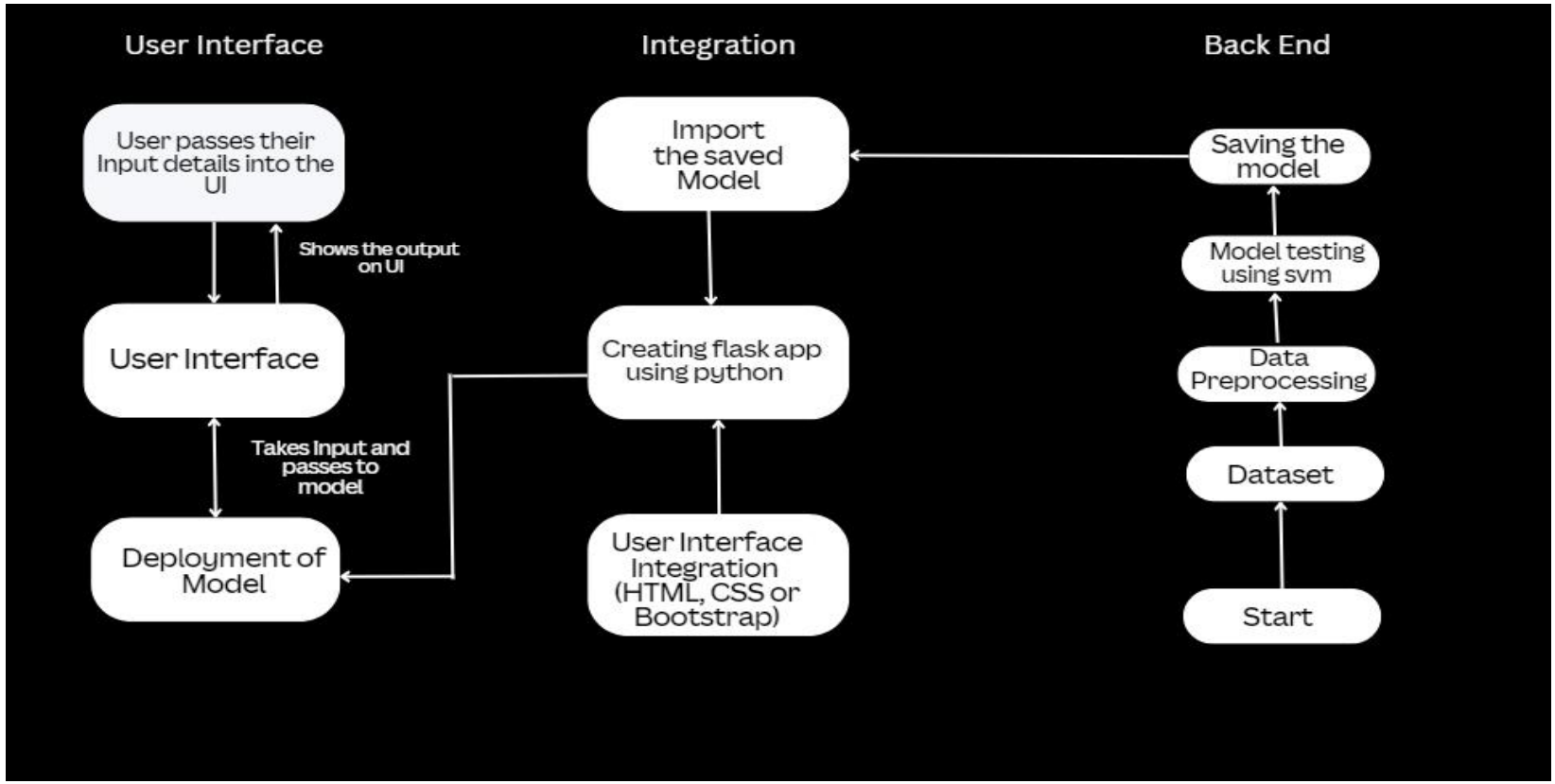

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Python/Flask	Backend web framework for handling server requests	Python, Flask
2.	Model (SVM)	Machine learning model for car affordability prediction	Scikit-Learn (Python)
3.	StandardScaler	Data preprocessing for feature scaling	Scikit-Learn (Python)
4.	HTML/CSS	Frontend structure and styling	HTML, CSS
5.	Bootstrap	CSS framework for responsive web design	Bootstrap
6.	JavaScript	Scripting for smooth scrolling and GitHub links	JavaScript
7.	pickle	Serialization for saving and loading Python objects	Python (Standard Library)
8.	Pandas	Data manipulation and CSV file reading	Pandas (Python)
9.	GitHub	Hosting the project's code repository	GitHub

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Utilizes open-source frameworks for both the backend and frontend	Flask (Python), Bootstrap
2.	Security Implementations	Implements basic security measures such as form input validation	Input validation, no detailed security implementation mentioned
3.	Scalable Architecture	The application is designed using a monolithic architecture	Monolithic architecture
4.	Availability	Availability is limited as the application runs locally	No load balancers or distributed servers are used
5.	Performance	Performance considerations include frontend responsiveness	No specific performance optimization techniques mentioned