

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	07-11-2023
Team ID	Team-592036
Project Name	Online Payments Fraud Detection Using ML
Maximum Marks	4 Marks

Technical Architecture:

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

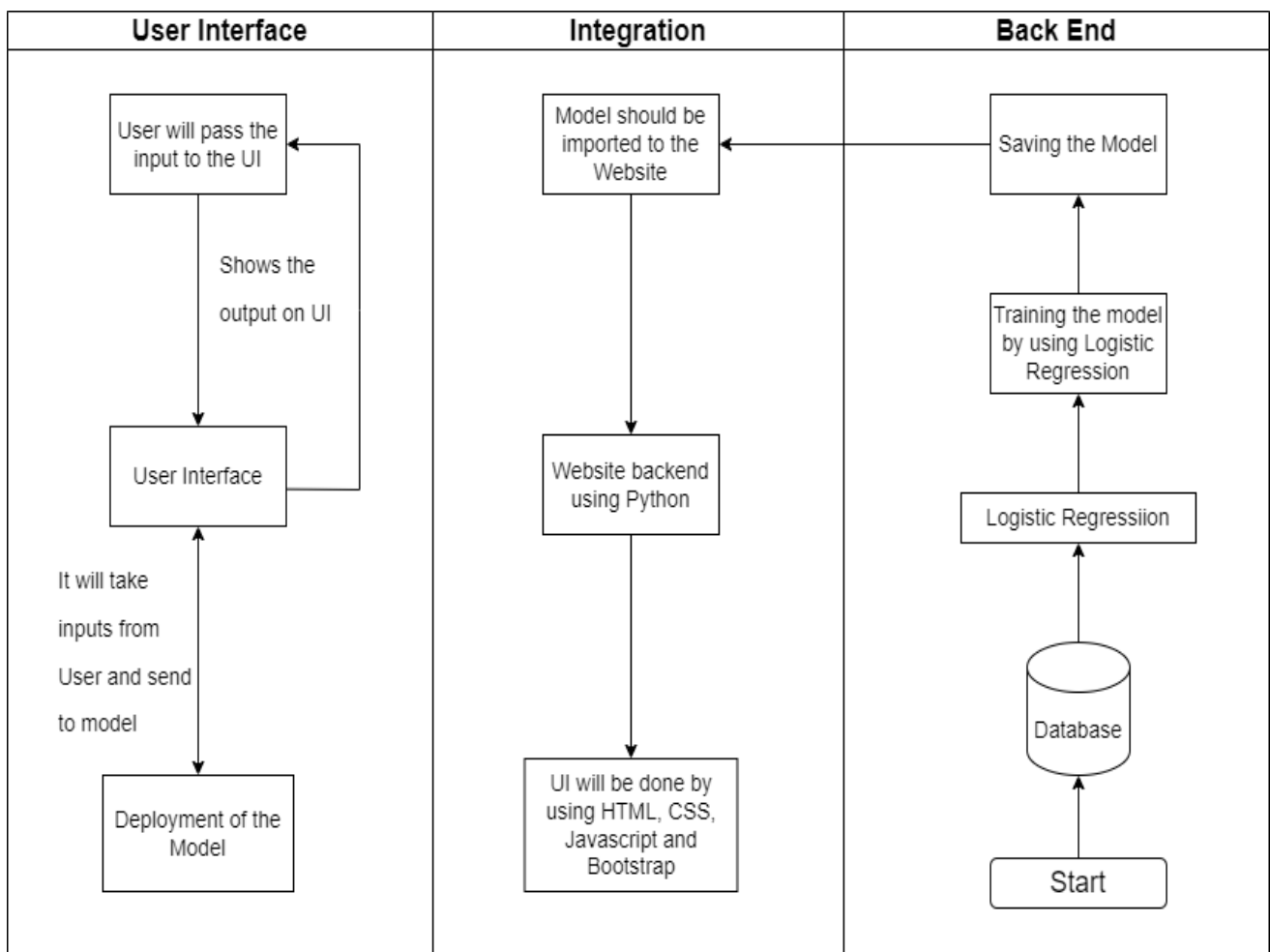


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The UI is the part of the application that the user interacts with. Example: Web UI	React, HTML, CSS
2.	Application Logic	The application logic is the code that runs behind the scenes to make the application work.	Python
3.	Database	The database stores the application's data, such as user information, transaction history, and fraud rules.	File Manager, MySQL
4.	File Storage	File storage is used to store files that are too large to be stored in the database.	Google drive, Local Filesystem
5.	Infrastructure	The infrastructure is the hardware and software that the application runs on.	Local, Cloud foundry, Kubernetes, etc.
6.	Framework	The framework is the software library that is used to develop the ML model.	TensorFlow, scikit-learn
7.	ML Model	The ML model is a machine learning algorithm that is used to detect fraud.	Logistic Regression

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Framework	Used Open-Source framework	Python
2.	Security Implementations	Implemented security / access controls	Example: SHA-256, Encryptions, IAM Controls, OWASP.
3.	Scalability Architecture	The scalability of architecture (3 – tier, Micro-services)	Technology Used
4.	Availability	The availability of applications (e.g. use of load balancers, distributed servers etc.)	Technology Used
5.	Performance	Design consideration for the performance of the application	Technology Used