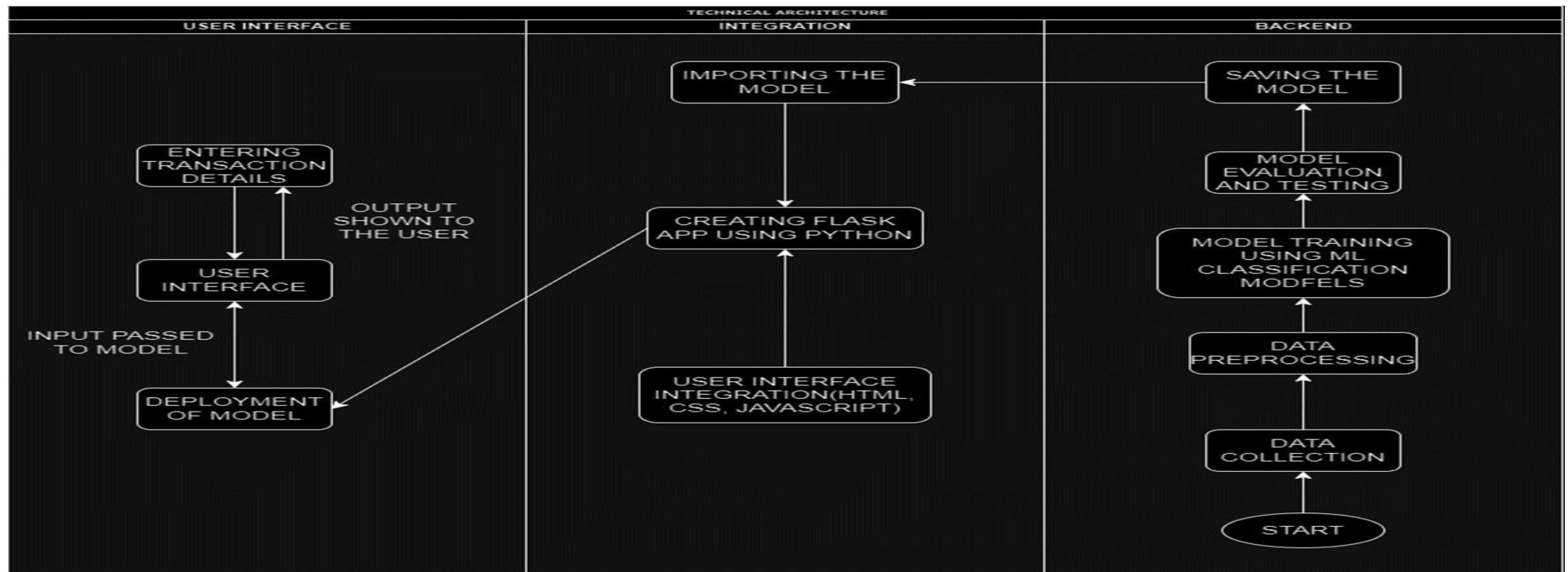| Date	4 February 2026
Team ID	LTVIP2026TMIDS48224
Project Name	Online Payments Fraud Detection using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

Table-1 : Components & Technologies:

Sl. No	Component	Description	Technology Used in Your Project
1.	User Interface	Web pages for Home, Predict and Result	HTML, CSS
2.	Data Collection	Online payments fraud dataset	Kaggle Dataset
3.	Data Preprocessing	Cleaning data, feature selection, splitting, visualization	Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn
4.	Application Logic	Handling routes, form data, prediction	Python Flask
5.	Machine Learning Model	Fraud detection trained models	Decision Tree, Random Forest, SVM, XGBoost, Extra Tree
6.	Model Storage	Saving trained model for reuse	Pickle (.pkl file)
7.	Prediction API	Flask route to accept inputs and return prediction	Flask API (/pred route)
8.	Evaluation	Checking model performance	Accuracy Score, Confusion Matrix, Classification Report
9.	Infrastructure	Running the application	Local System (Anaconda / VS Code)

Table-2: Application Characteristics:

Sl. No	Characteristics	Description	Technology Used
1.	Open-Source Frameworks	Using open-source tools for building web app and ML model	Python, Flask, Scikit-learn, XGBoost, Pandas, Numpy
2.	Simple Monolithic Architecture	Single Flask application handling UI, logic, and prediction	Flask (app.py)
3.	Availability	Application runs locally and is accessible via browser	Localhost (127.0.0.1)
4.	Performance	Fast prediction using pre-trained pickle model without retraining	Pickle (. pkl model), Numpy
5.	User Interaction	Web form to take transaction inputs and display prediction	HTML, CSS Forms