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

Date	03 October 2022
Project Name	Smart Lender - Applicant Credibility Prediction For Loan Approval
Maximum Marks	4 Marks

Technical Architecture:

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

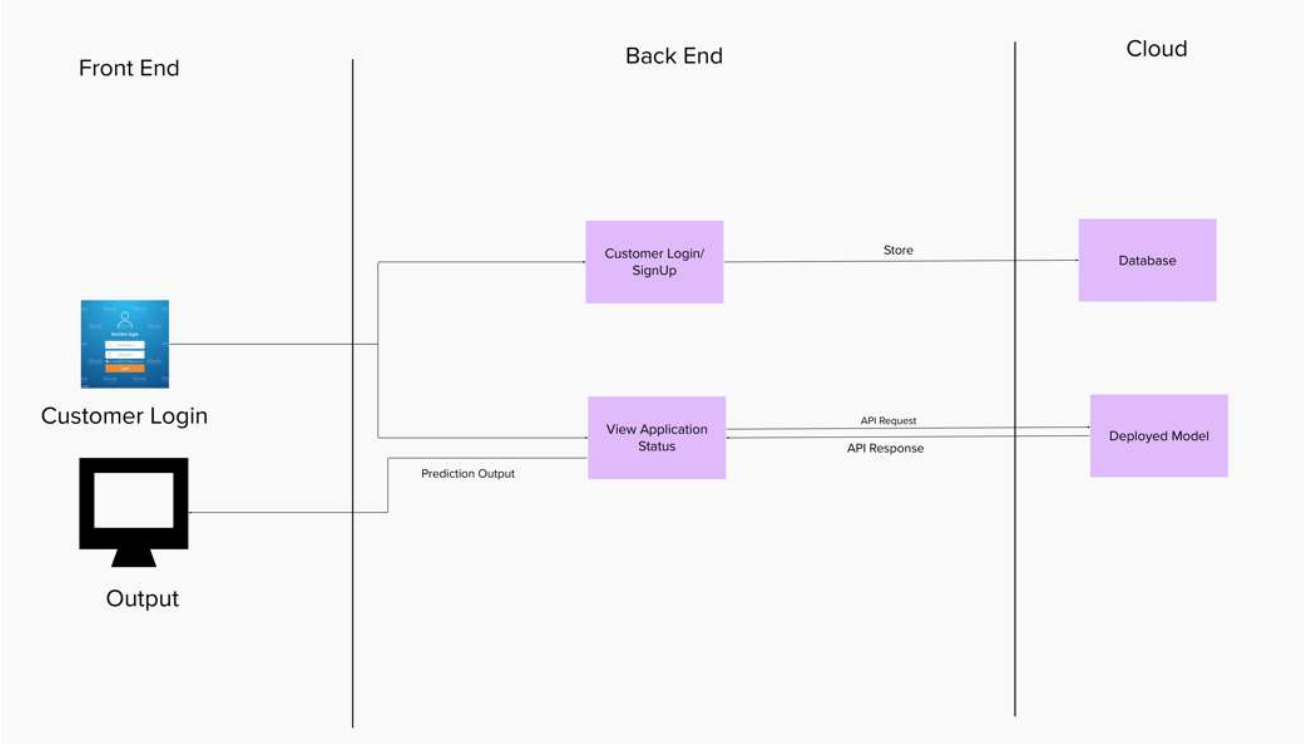

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the application using the web UI	HTML, CSS, JavaScript
2.	Customer Login/ Signup	This page allows users to login or register to the web application	HTML, CSS, JavaScript
3.	View Application Status	On this page, users can check the status of their credit request	HTML, CSS, JavaScript
4.	Output	Here the user can view the results whether the loan was approved or not	HTML, CSS, JavaScript
5.	Database	Loan Approval dataset and login details of customers	Csv file, SQL
6.	Cloud Database	Deploying the models on the cloud	IBM Cloud
7.	Machine Learning Model	Using Machine learning Models like Decision Tree, Random Forest, KNN and Xg boost for predicting loan approval	Python, sklearn
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System. :	Flask

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used to host the website. scikit, numpy, and tensorflow are open source Python machine learning frameworks.	Flask, scikit, numpy, tensorflow
2.	Scalable Architecture	Applications can be deployed on many computers. The database does not establish long connections with each client. Only connections from a few application servers are required. Improves data integrity	3 Tier Architecture
3.	Availability	Distributed storage and distribution, and a web application approach make the service highly available	IBM Cloud File Storage, MySQL