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

Date	20 October 2022
Team ID	PNT2022TMID18010
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

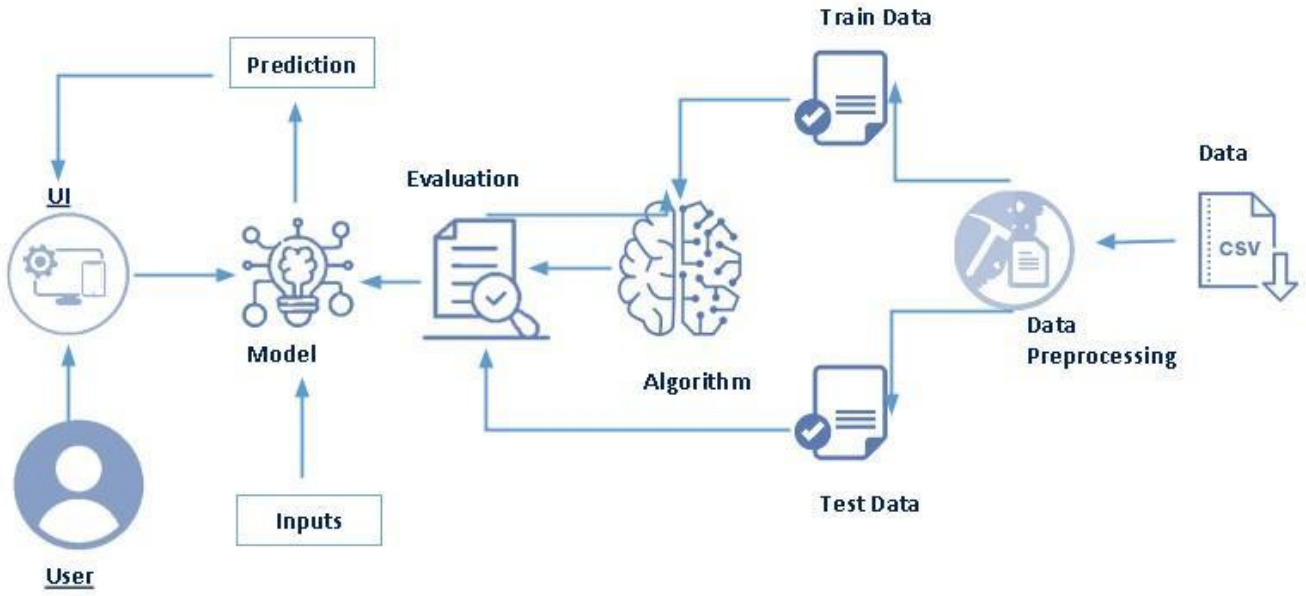

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	**User Interface**	Web UI	HTML, CSS, JavaScript
2.	**Application Logic-1** (Pre – Processing of Data set)	Pre-processing is the important works to be done in the Dataset	Python, Pandas, NumPy, Scikit learn
3.	**Application Logic-2** (Model Building)	Constructing a ML model to detect the Loan Defaulters.	Python, Pickle, Pandas, Scikit learn
4.	**Application Logic-3** (Creating Web UI)	User for the User interaction	HTML, CSS, JavaScript
5.	**Dataset**	Dataset is collected from IBM	IBM
6.	**Cloud Database**	User for hosting the Web UI and also the exchange of Data	IBM Cloud
7.	**File Storage**	The dataset and source code are stored in files	IBM Block Storage or Other Storage Service or Local Filesystem
8.	**Machine Learning Model**	To find the Loan Defaulters	Python, Scikit learn

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	**Open-Source Frameworks**	Used for model building, package manager, code development, data analysis and evaluation	VS code, Python, Flask, Scikit – Learn, Pandas, NumPy, Matplotlib, Seaborn
2.	**Buoyant**	Can be trained for more accuracy	Python, Scikit - Learn
3.	**Operability**	Use a highly available server for deployment	IBM Cloud
4.	**Execution**	Web UI and Model	HTML, CSS, JS, Scikit - Learn
5.	**Performance**	Could yield results within seconds.	Python, Flask and pickle