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

Date	03 October 2022
Team ID	PNT2022TMID30218
Project Name	Smart Lender - Applicant Credibility Prediction For Loan Approval
Maximum Marks	4 Marks

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application using Web UI, Chatbot etc…	HTML, CSS, JavaScript, Bootstrap
2.	Cloud Database	Database service stored on IBM cloud	IBM Cloud
3.	Data Processing	The data from the dataset is used for training the model to predict the eligible applicant	Pandas, Numpy, Matplotlib
4.	Machine Learning Model	ML algorithms is used to predict the eligible applicants	Linear Regression, Decision Tree, Random Forest
5.	Chatbot	Chatbot options will be available, so that the applicant can clarify their queries	Natural Language Processing, Python

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Open-source framework used	Python Flask, BootStrap, Numpy
2.	Security Implementations	Request authentication using Encryption	SSL Certificates, Encryptions
3.	Scalable Architecture	The scalability consists of 3-tiers	Web Server- HTML, CSS, Javascript Application Server- Python Flask Database Server- IBM Cloud
4.	Availability	The application is available for cloud users	IBM Cloud file storage
5.	Performance	Loan needed applicant can use this web application	IBM load balance

Technical Architecture: