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

Date	25 October 2022
Team ID	PNT2022TMID12860
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

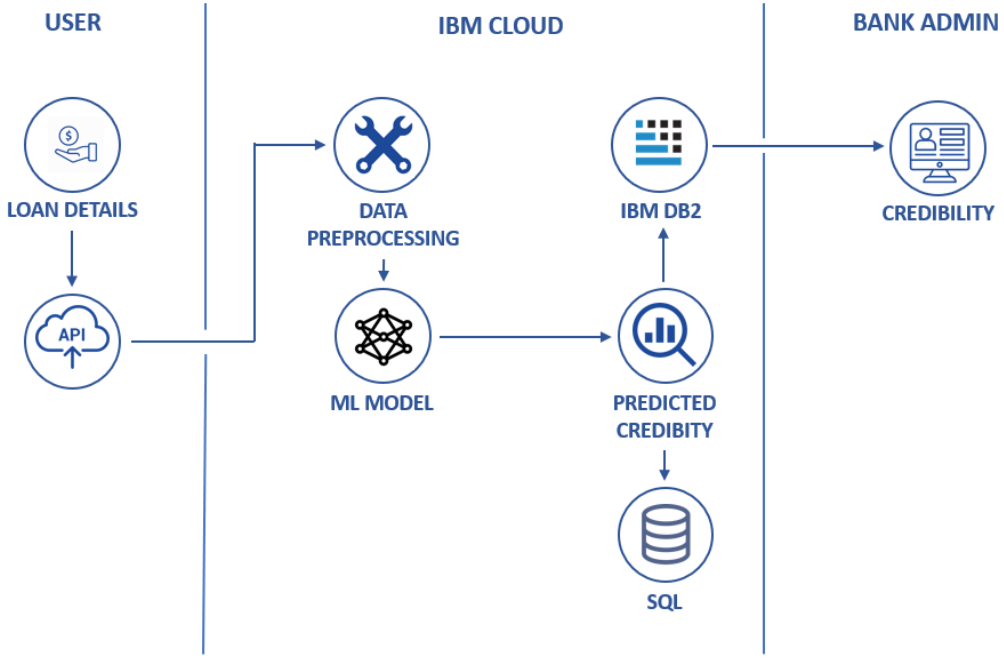

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	API	HTML, CSS, JavaScript
2.	Application Logic-1	Python can be used for Data Pre-Processing	Java
3.	Application Logic-2	Input Acquisition	IBM Watson Assistant
4.	Database	History of Loan applicants and their credibility	MySQL
5.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
6.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
7.	External API	Machine Learning API can be used	IBM Weather API, etc.
8.	Machine Learning Model	A machine learning model to identify the credibility of loan applicants may be used	Credibility Check Model, etc.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is a micro web framework written in Python.	FLASK
2.	Security Implementations	To implement the security / access controls and for usage of firewalls etc.	SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Cloud computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user.	Cloud
4.	Availability	A distributed cloud is an architecture where multiple clouds are used to meet compliance needs, performance requirements, or support edge computing while being centrally managed from the public cloud provider.	Distributed Cloud Service
5.	Performance	Software-defined networking technology is an approach to network management that enables dynamic, programmatically efficient network configuration in order to improve network performance and monitoring, making it more like cloud computing than traditional network management.	Software Defined Networking