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

Date	16 October 2022
Team ID	PNT2022TMID08820
Project Name	Project - Project - Smart Lender - Applicant Credibility Prediction for Loan Approval
Maximum Marks	4 Marks

Technical Architecture:

Front End **Back End** **IBM Could**

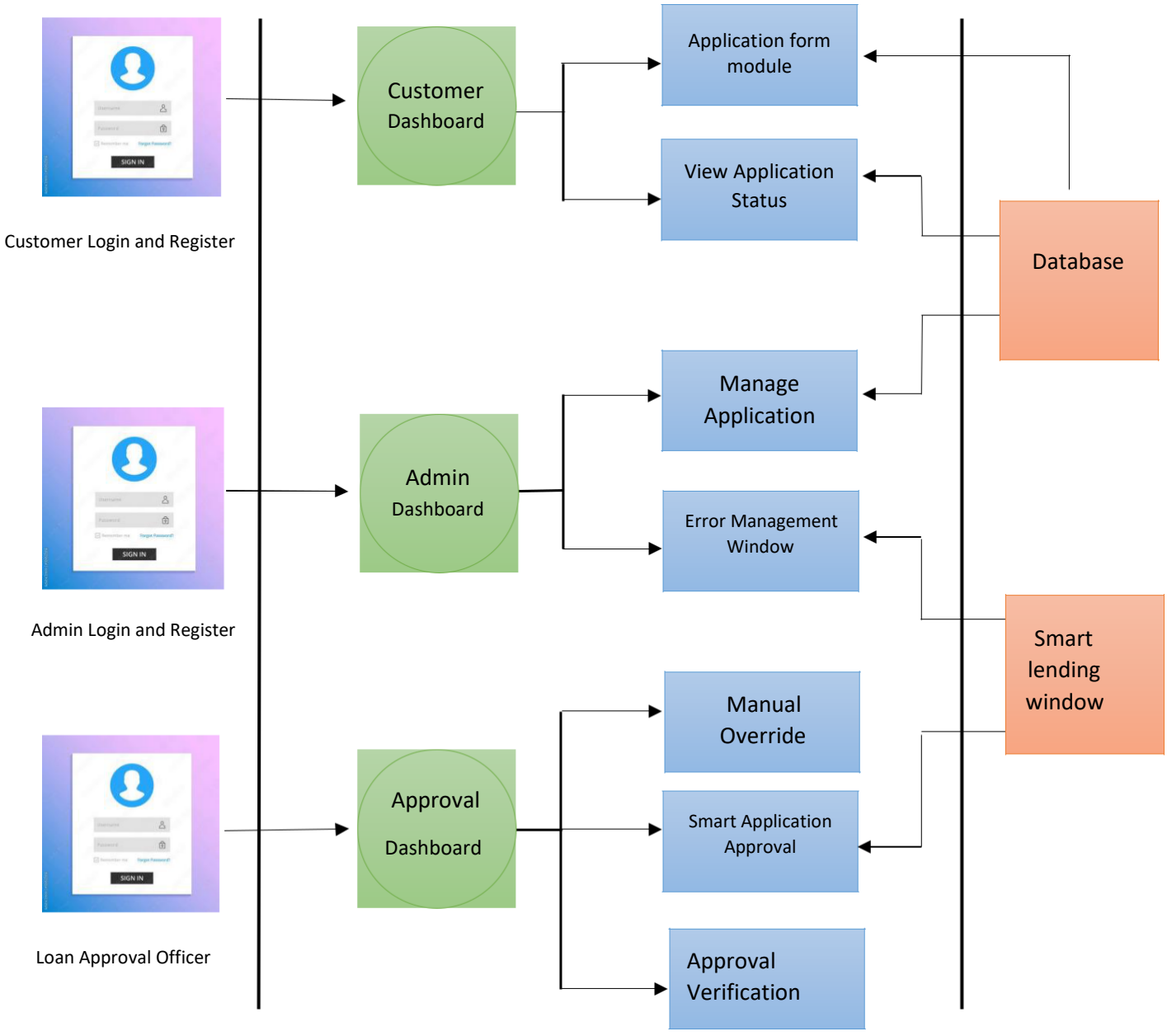

Table-1 : Components & Technologies:

S.No	Components	Description	Technology
1.	User Interface	How user interacts with Application i.e UI.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL/SQLITE, MongoDB, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine Learning Model	Purpose of Machine Learning Model	Classification Models.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration.	Local, Cloud Foundry, Kubernetes, etc

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 all open source python machine learning frameworks.	Sckit
2.	Security Implementations	OpenSSL is a program and library that supports many different cryptographic operations, including: Symmetric key encryption. Public/private key pair generation. Public key encryption. Hash functions	OpenSSL
3.	Scalable Architecture	Since the application servers can be deployed on many machines. Also, the database does not make longer connections with every client – it only requires connections from a smaller number of application servers. It improves data integrity.	3 Tier
4.	Availability	Decentralized storage and distribution along-with web application approach make the service highly available.	IBM cloud online
5.	Performance	Long term header expiration.	AJAX

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d