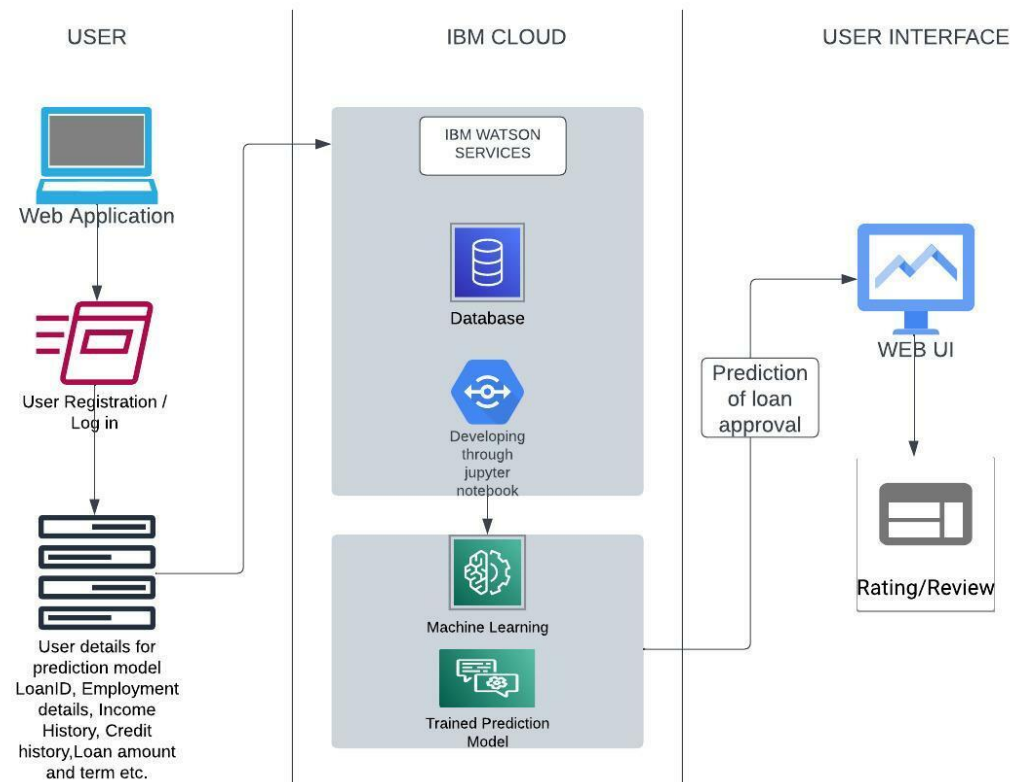


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID36990
Project Name	Project - Smart Lender- Applicant Credibility Prediction for loan approval
Maximum Marks	4 Marks

### TECHNOLOGY ARCHITECTURE:



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	Web UI.	HTML, CSS, JavaScript etc.
2.	Application Logic-1	Prediction model using ML Algorithm.	Python
3.	Application Logic-2	Collects the required details from the user and confirms it.	HTML Forms
4.	Application Logic-3	Processes the details collected using the prediction model and gives the applicant credibility prediction.	Prediction Model,IBM Cloud
5.	Database	Initial training and test data sets.	Preloaded in IBM Cloud
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.	External API-1	User registration and login.	HTML Web pages
9.	External API-2	Details from the user for applicant credibility prediction for loan approval.	HTML Web pages
10.	Machine Learning Model	Machine Learning Model to predict the applicant credibility for loan approval.	Applicant Credibility Prediction Model
11.	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	Jupyter Notebook VS code	Python Streamlined code editor for task running, debugging etc.

S.No	Characteristics	Description	Technology
		Flask	Developing web application using python
2.	Security Implementations	Web Application Firewall Runtime Application Self Protection ASMP	WAF, RASP.
3.	Scalable Architecture	Cloud storage is used to ensure scalability of the architecture.	IBM Cloud
4.	Availability	Load testing Cloud Storage to provide easily available access	LoadView/LoadNinja IBM Cloud
5.	Performance	Average Response time,Load balancing User Satisfaction/Apdex Scores	JMeter/LoadView Review form/Ratings