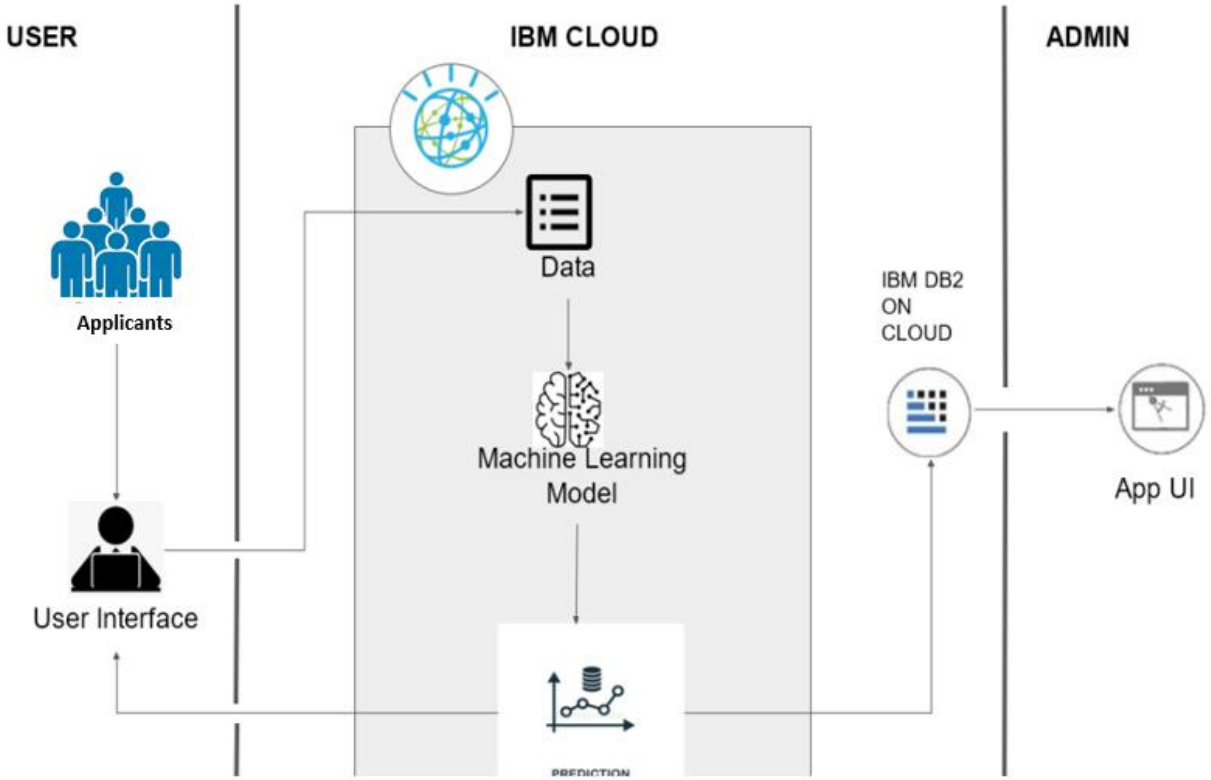
SMART LENDER - APPLICANT CREDIBILITY PREDICTION FOR LOAN APPROVAL

Technical Architecture :



Components and Technologies :

S. No	Components	Description	Technology
1	User Interface	User can interacts with application through Web UI.	HTML , CSS , JavaScript , Bootstrap , Flask
2	Application Logic-1	The user / Applicant can enter the data / information in the form ,which is displayed using the flask and it is sent for the machine learning model for the prediction	Java / Python
3	Application Logic-2	The application is directly deployed in the IBM cloud	IBM Watson STT service
4	Database	The user credentials are stored ,which is used to send notification of any updates	MySQL
5	Cloud	Database Service on Cloud	Database IBM DB2, IBM Cloud and etc
6	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
7	Machine Learning Model	The model is used to predict whether the student is eligible or not.	Object Recognition Model, etc.

8	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration	Local, Cloud Foundry, Kubernetes, etc.

Application characteristics :

S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	To create an user friendly interface and to route the data to machine learning model	Flask
2	Security Implementations	Authorization access scenarios and definitions, hand-over procedures for applicant records between banks	IBM Watson STT service
3	Scalable Architecture	• Horizontal scaling is provided by adding more machines to the pool of servers. • Vertical scaling is achieved by adding more CPU and RAM to the existing machines.	IBM Watson STT service
4	Availability	The web dashboard must be available to US and IND users 99.98 percent of the time every month during business hours EST & IST.	IBM cloud and browsers
5	Performance	The landing page supporting 5,000 users per hour must provide 6 second or less response time in a Chrome desktop browser, including the rendering of text and images and over an LTE connection.	APM technology