IBM Cloud **Project Design Phase-II**
Technology Stack (Architecture & Stack)

Technical Architecture:

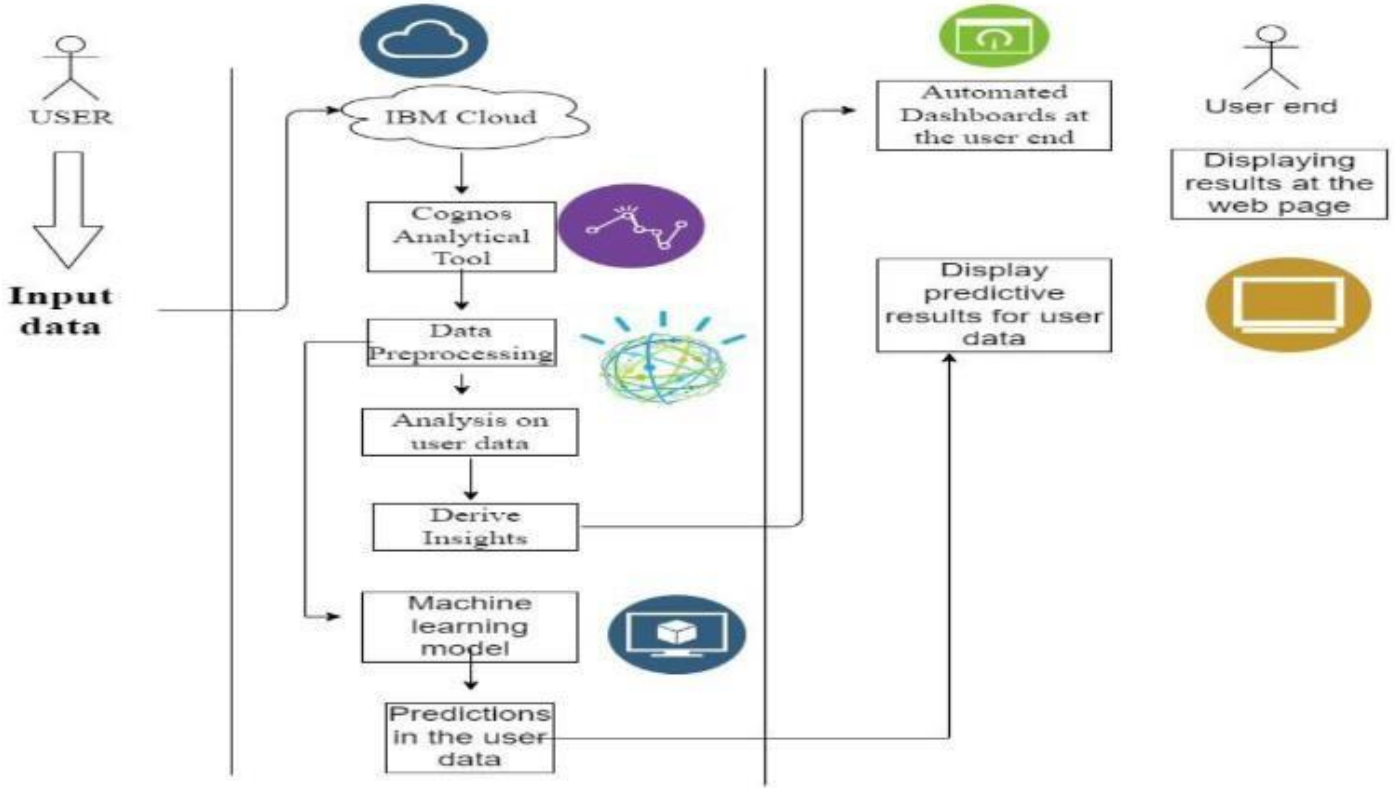

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User uploads the csv or excel format file into the web page	IBM Cognos, Python
2.	Application Logic-1	The user data will pass into the IBM cloud for storing and acts as a data source	IBM Cloud
3.	Application Logic-2	In Cloud, data will be fetch by the Cognos analytical Tool for data analysis	IBM Cognos Analytics Tool
4.	Application Logic-3	The pre-trained Dashboards will be present to perform analysis on the incoming data	IBM Cognos Analytics Tool
5.	Database	Data will be retrieved from the cloud	MySQL
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	To perform data analysis on the user data.	IBM Cognos Tool
9.	External API-2	To build the Machine learning model for predicting or classification	Jupyter Notebook
10.	Machine Learning Model	To do the predictive analysis on the input data	Predictive analysis model
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Using the Flask Cloud Server Configuration : IBM Cloud	Local, Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Google Colaboratory, Jupyter notebook	Google, Anaconda
2.	Security Implementations	To protect data from the unauthorized access.	SHA-256, Encryptions

S.No	Characteristics	Description	Technology
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IBM Cloud
4.	Availability	It can be accessible with the help of the cloud service such as simple storage service	IBM Cloud
5.	Performance	It could handle number of requests via cloud service with the help of the IBM Cloud	IBM Cloud, Cognos analytical tool