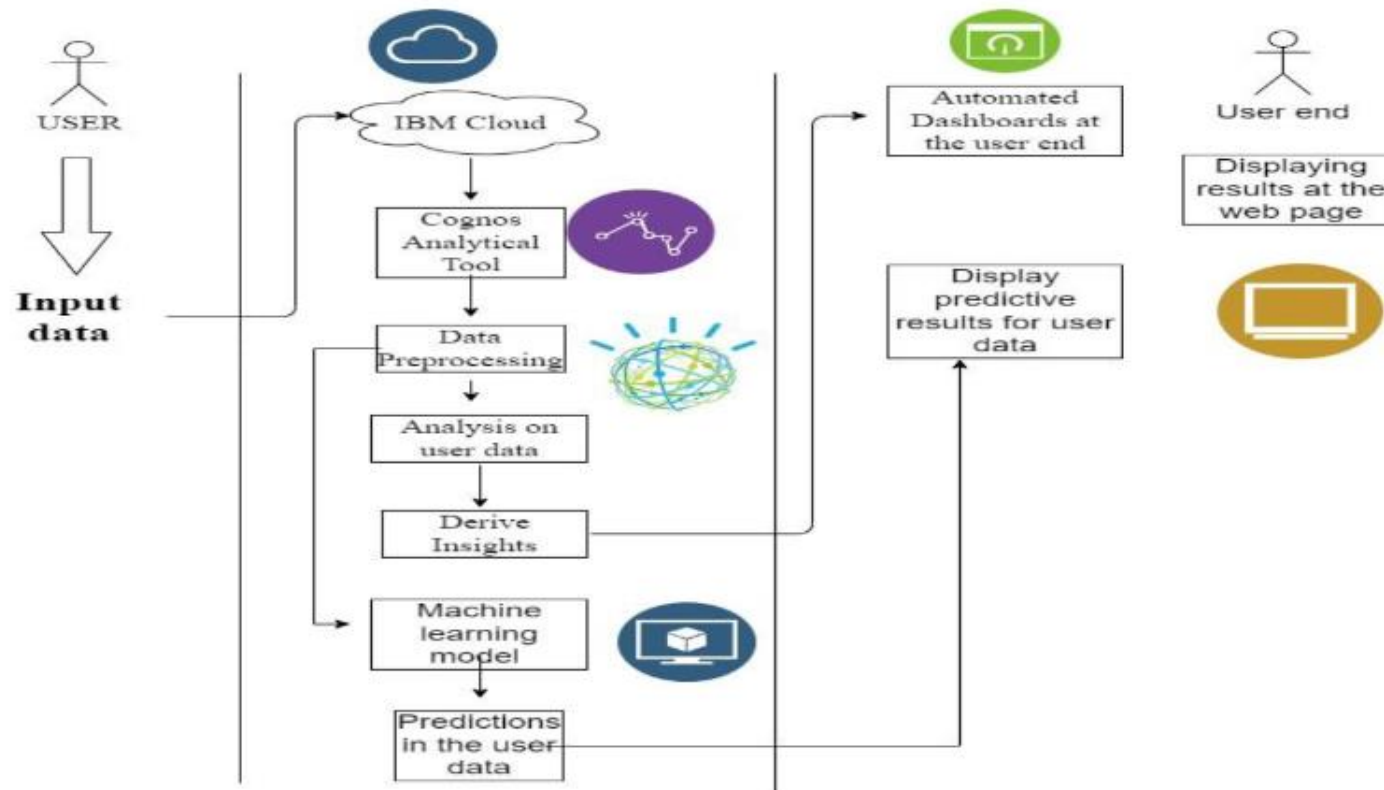


**IBM Cloud Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

|               |                  |
|---------------|------------------|
| Date          | 24 October 2022  |
| Team ID       | PNT2022TMID37244 |
| Project Name  | Project - xxx    |
| Maximum Marks | 4 Marks          |

**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<br>Local Server Configuration: Using the Flask<br>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 |

| <b>S.No</b> | <b>Characteristics</b> | <b>Description</b>   | <b>Technology</b>                 |
|-------------|------------------------|--|-----------------------------------|
| 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 |