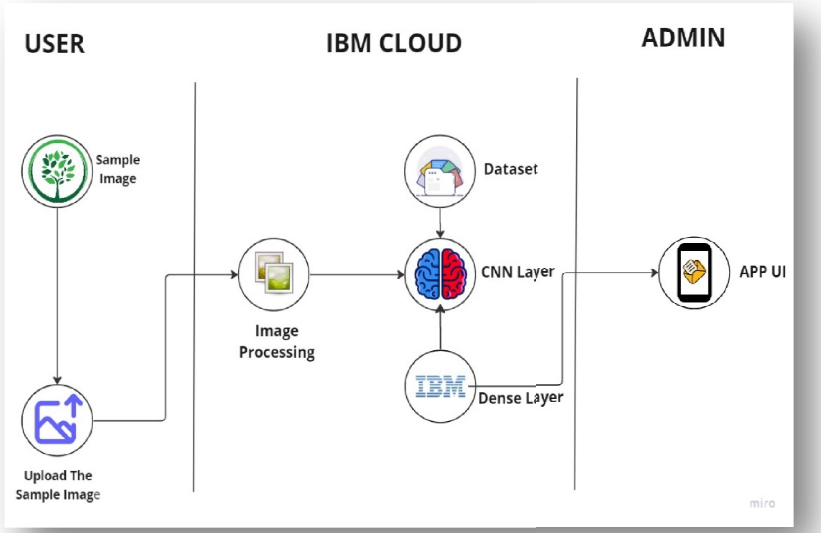
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	16 October 2022
Team ID	PNT2022TMID36196
Project Name	FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION:



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 :Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application using Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js .
2.	Application Logic-1	Logic for a process in the application	Java / 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, NoSQL, 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.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
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	The open-source frameworks used are RNN,Python flask.	Technology used for Opensource framework is python.
2.	Security Implementations	The security / access controls are implemented, use of firewalls .	SHA-256, Encryptions, IBM Controls, OWASP etc.
3.	Scalable Architecture	The scalability of architecture is improved by updating the software.	Technology used is Deep learning
4.	Availability	The availability of application is based on subscription manner and distributed servers are provided.	Technology used is IBM Watson cloudant.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Technology used is Artificial neural network.