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

| Date | 21 October 2022 |
|------|-----------------|
| Team ID | PNT2022TMID10715 |
| 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
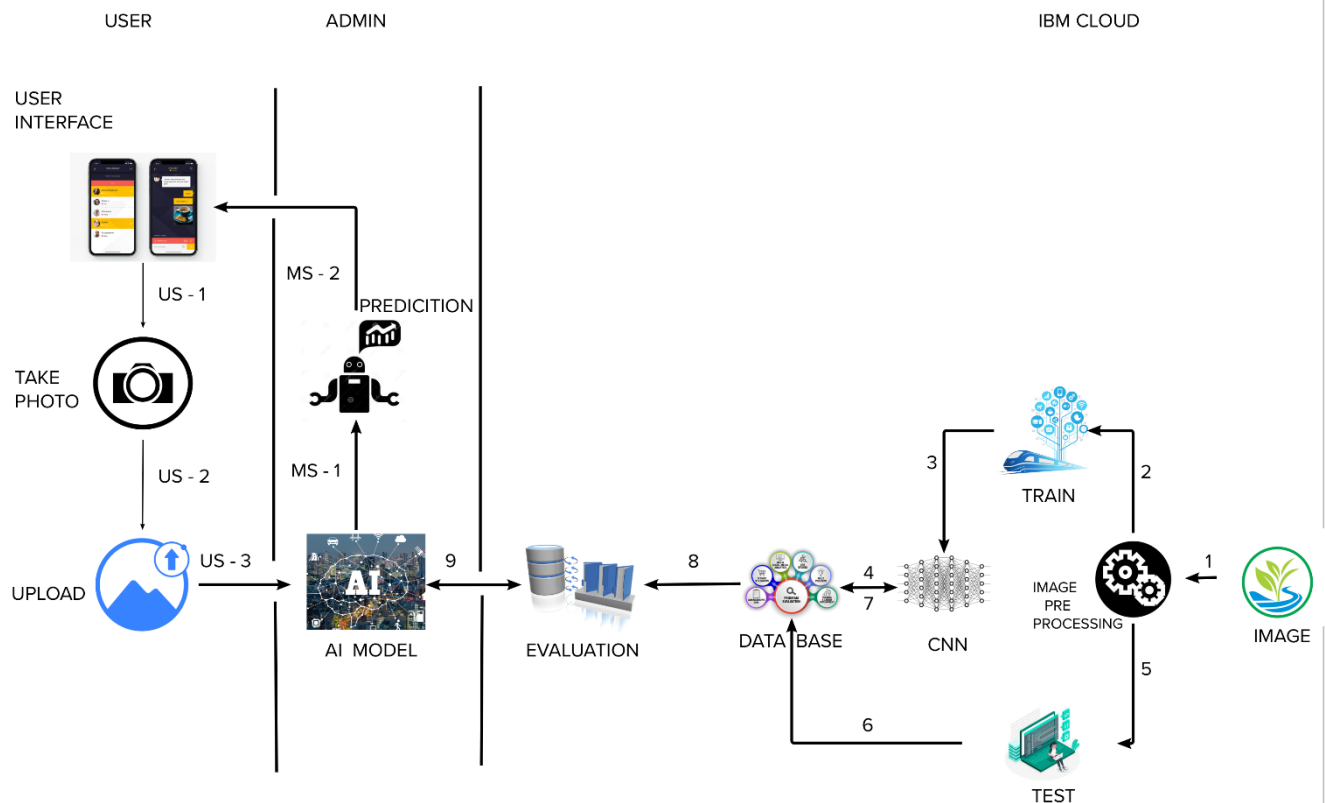
**Technical Architecture Diagram:**

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

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1 | User Interface | Application development eg Mobile app, Chatbot, Web UI | CSS, HTML, JavaScript. |
| 2 | Application logic | application | Python |
| 3 | Image processing | Provide logic for a machine to process the images uploaded by the users | Image Recognition |
| 4 | Database | Enable developer to store data and then accessing it | MySQL |
| 5 | Cloud Database | Data base on cloud | IBM Data base |
| 6 | File Storage | File storage | IBM Cloud |
| 7 | External API-1 | We use it for the identity of the users | Gmail |
| 8 | External API-2 | Verify user | Phone number |
| 9 | Deep Learning Model | Deep learning model | CNN |
| 10 | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud | Local, Cloud Foundry |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1 | Open-Source Frameworks | List the open-source frameworks used | Flask is a free high level opensource web framework |
| 2 | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | SHA-256, OWASP |
| 3 | Scalable Architecture | Justify the scalability of architecture | Micro-services |
| 4 | Availability | Justify the availability of application | Load balancers |
| 5 | Performance | Design consideration for the performance of the application. | use of Cache |