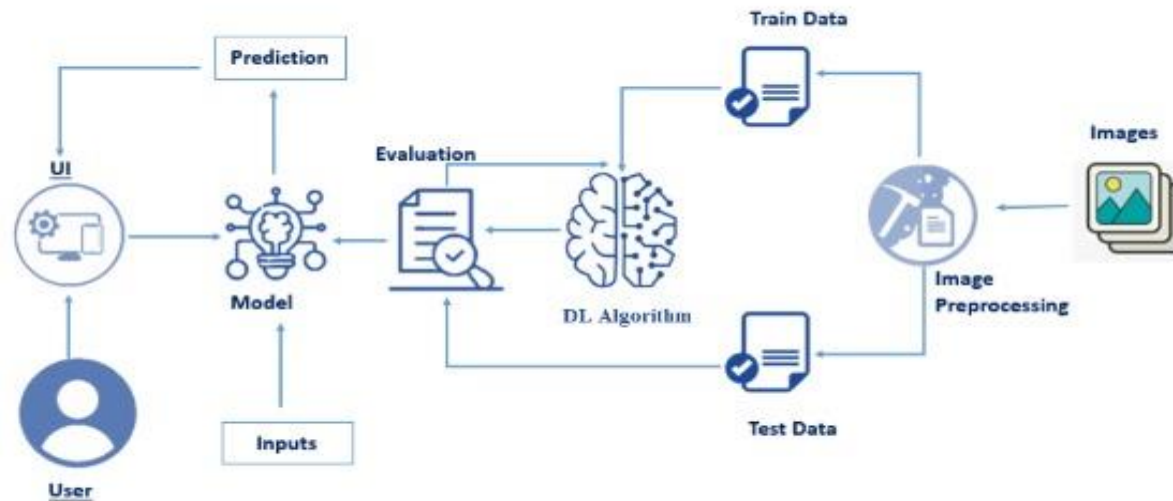


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

|               |   |
|---------------|---|
| Date          | 10 November 2022  |
| Team ID       | PNT2022TMID19767  |
| Project Name  | Project - Fertilizer Recommendation System for Disease Prediction |
| Maximum Marks | 4 Marks   |

**Technical Architecture:**



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

| S.No | Component                       | Description   | Technology   |
|------|---------------------------------|---|--|
| 1.   | User Interface                  | How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.                                     | HTML, CSS, JavaScript / Angular Js / React Js etc.             |
| 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<br>Local Server Configuration:<br>Cloud Server Configuration : | Local, Cloud Foundry, Kubernetes, etc.                         |

**Table-2: Application Characteristics:**

| S.No | Characteristics          | Description  | Technology  |
|------|--------------------------|--|---|
| 1.   | Open-Source Frameworks   | List the open-source frameworks used                                       | Technology of Opensource framework                  |
| 2.   | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 3.   | Scalable Architecture    | Justify the scalability of architecture (3 – tier, Micro-services)         | Technology used                                     |

| S.No | Characteristics | Description   | Technology      |
|------|-----------------|---|-----------------|
| 4.   | Availability    | Justify the availability of application (e.g. use of load balancers, distributed servers etc.)                            | Technology used |
| 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 |