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

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|---|---|
| Date | 17October2022 |
| Team ID | PNT2022TMID23111 |
| Project Name | Fertilizer Recommendation System For Diseases 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

**Title: Fertilizer Recommendation System For Disease Prediction**

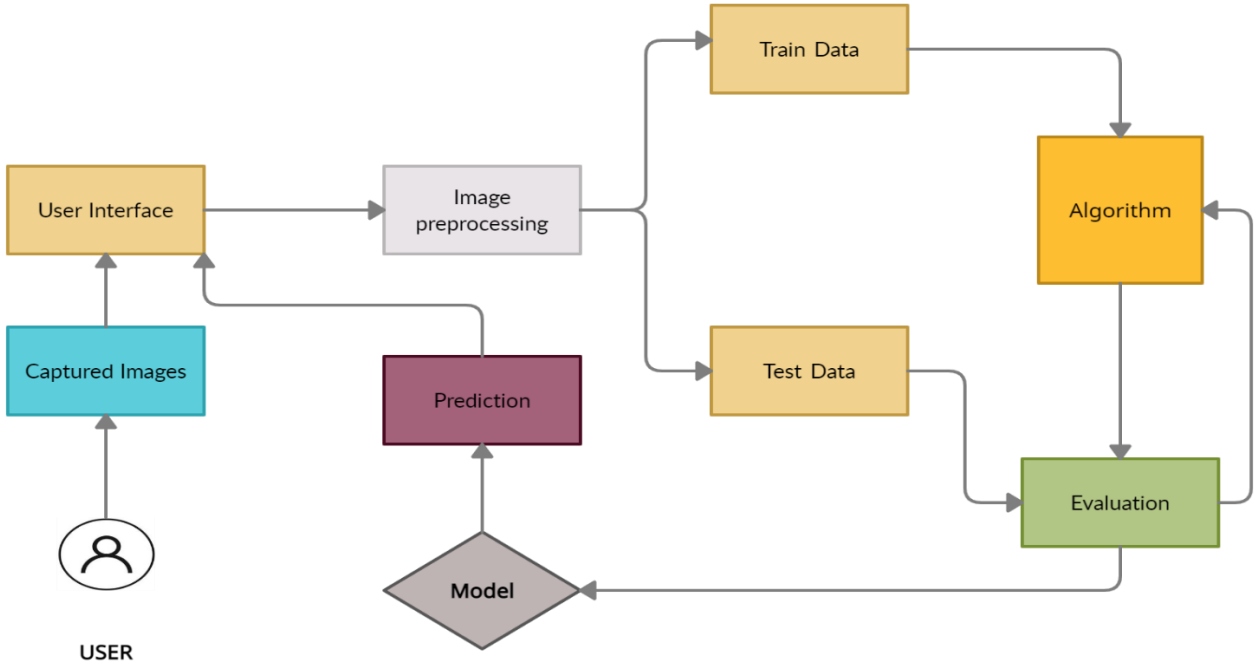

**Table-1: Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | How user interacts with application | HTML, CSS, JavaScript |
| 2. | Image pre-processing | Image of the disease affected leaves are captured and uploaded and then pre-processed using algorithms | Python |
| 3. | Machine Learning Model | It is the of the system and it makes predictions and recommendations based on the inputs using algorithms | Python |
| 4. | Database | Captured images and datasets are stored | Local File system |
| 5. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 6. | File Storage | Trained and Tested datasets are stored | Other Storage Service or Local Filesystem |
| 7. | Algorithm | Machine learning algorithm will make use of inputs and make predictions | CNN, dense layers |
| 8. | Predictions | Application will produce the results and display it to the user. | Python |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Jupyter Notebook, Python Flask | Python, Local storage |
| 2. | Scalable Architecture | Two tier architecture will be used. Client and Server | Python |
| 3. | Availability | It is a user-friendly application and all the users can make use of it irrespective of time. | IBM Cloud |
| 4. | Performance | The system will work efficiently for the large number of inputs and user scale size. | IBM Cloud |