**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 04 November 2022 |
| Team ID | PNT2022TMID47880 |
| Project Name | Fertilizer recommendation system for disease prediction |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR - 1 | User Registration | Registration through Form  Registration through Gmail |
| FR - 2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR - 3 | Capture image | Capture image of the leaf and Check the parameter of the capture image |
| FR - 4 | Image processing | Upload the image for the prediction of disease in the leaf |
| FR - 5 | Leaf Identification | Identify the leaf predict the disease |
| FR - 6 | Image description | Suggest the best fertilizer for disease |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | * Data sets of all leaves is used for detecting the disease that present in leaf |
| NFR-2 | **Security** | * Information belongs to user and leaf are secured highly |
| NFR-3 | **Reliability** | * Trustworthy * Updates the leaf health periodically to the User * It Ensure the health of plant for disease Prediction |
| NFR-4 | **Performance** | The AI-based model is built by using Image/object recognition and classification using CNN.   * The user take images as input to detect Disease. * Then Image Process and Determine   the disease to recommend the Fertilizer |
| NFR-5 | **Availability** | * Available Fertilizer and its Cost * Amount of Usage of Fertilizer * Prevention methods for crops. |
| NFR-6 | **Scalability** | Through this system, the user can efficiently and effectively understand their:   * Best to Understand the Plant Pathology for User. * Prediction of Disease lower the loss of crops production. * Measure the affected Area. |