

**PROJECT DESIGN PHASE - 1**  
**SOLUTION REQUIREMENTS (FUNCTIONAL & NON FUNCTIONAL)**

|              |                                                               |
|--------------|---------------------------------------------------------------|
| DATE         | 8 October 2022                                                |
| TEAM ID      | PNT2022TMID04804                                              |
| PROJECT NAME | Fertilizer Recommendation Disease Prediction System For Plant |
| MAXIMUM MARK | 4 Marks                                                       |

**Functional Requirement:**

Following are the functional requirements of the proposed solution

| Fr.no | Functional requirement   | Sub requirement                                                                                         |
|-------|--------------------------|---------------------------------------------------------------------------------------------------------|
| Fr 1  | User registration        | Registration done through form and Gmail                                                                |
| Fr 2  | User confirmation        | Confirmation via OTP Confirmation via Email                                                             |
| Fr 3  | Uploading Dataset (Leaf) | Images of the leaves are to be uploaded                                                                 |
| Fr 4  | Leaf identification      | Identify the leaf and predict the disease in leaf.                                                      |
| Fr 5  | Image description        | Suggesting the best fertilizer for the disease.                                                         |
| Fr 6  | Downloading Solution     | The Solution in pdf format which contains the recommendations of fertilizers and the possible diseases. |

**Non-Functional Requirement:**

Following are the non-functional requirement of the proposed solution

| NFr.no | Non-functional requirement | Description                                                                                                     |
|--------|----------------------------|-----------------------------------------------------------------------------------------------------------------|
| Nfr1   | Usability                  | The system allows the user to perform the tasks easily and efficiently and effectively                          |
| Nfr2   | Security                   | The information that belongs to the User and leaf are protected against malware attacks or unauthorized access  |
| Nfr3   | Reliability                | The website does not recover from failure quickly, it takes time as the application is running in single server |
| Nfr4   | Performance                | Response Time and Net Processing Time is Fast                                                                   |
| Nfr5   | Availability               | The system will be available up to 95% of the time                                                              |
| Nfr6   | Scalability                | The system is capable of being expanded or upgraded                                                             |