

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	31 January 2025
Team ID	PNT2025TMID01163
Project Name	Predicting Plant Growth Stages with Environmental and Management Data Using Power BI
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Real-Time Data Integration	Fetch live Weather,soil, and Environmental Data from API & Sensors.
FR-2	Data Visualization	Display Interactive Charts and Graphs for plants growth Trends.
FR-3	User Access Control	Restrict Data modification rights based on roles.
FR-4	Data Storage and Management	Stores Collected Data Securely in Cloud Storage

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Create a user-friendly and interactive dashboard with easy navigation and filtering options.
NFR-2	Security	Implement role-based access, data encryption, and authentication mechanisms.
NFR-3	Reliability	Ensure Consistent data accuracy and minimize downtime risks.
NFR-4	Performance	Ensure fast data processing, visualization and report generation. Optimize DAX queries and use caching techniques.
NFR-5	Availability	Ensure 99.9% uptime with cloud based infrastructure and failover mechanisms.
NFR-6	Scalability	Support Increasing data volume and concurrent users without performance degradations.