Project Initialization and Planning Phase

Date	15 dec 2025
Team ID	**SWUID20250236463**
Project Name	**Predicting Plant Growth Stages with Environmental and Management Data Using Power BI**
Maximum Marks	3 Marks

Customer Problem Statement

Project Title: Predicting Plant Growth Stages with Environmental and Management Data Using Power BI

The Customer Problem Statement helps in understanding the challenges faced by end users involved in agricultural and greenhouse management. It focuses on identifying real-world problems related to plant growth consistency, resource utilization, and decision-making. By clearly defining these problems, the project aims to design a data-driven solution that addresses customer needs through effective analysis and visualization.

Customer Problem Statement Table

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	**A greenhouse operations manager responsible for multiple greenhouse units**	achieve consistent plant growth and healthy crop development across all greenhouse locations	plant growth milestones vary significantly even under similar cultivation efforts	environmental factors such as soil type, watering frequency, and sunlight exposure are not analyzed together in a structured manner	uncertain about which conditions should be standardized to improve overall productivity
PS-2	**An organic farm owner focused on sustainable agriculture**	improve crop yield while minimizing resource wastage and maintaining organic standards	plant growth stages are difficult to predict throughout the growing cycle	the impact of temperature, humidity, and organic fertilizer on plant development is not clearly understood	concerned about potential yield losses and inefficient use of water and nutrients

Relevance to the Project

These customer problem statements highlight the need for a comprehensive analytical solution that can combine multiple environmental and management variables into a single, interactive platform. The use of Power BI in this project directly addresses these challenges by enabling clear visualization, comparative analysis, and data-driven insights that support better agricultural decision-making.