

## Project Initialization and Planning Phase

|               |  |
|---------------|--|
| Date          | 22 July 2025   |
| Team ID       |  |
| Project Name  | Predicting Plant Growth Stages with Environmental and Management Data Using Power BI |
| Maximum Marks | 3 Marks  |

### Define Problem Statements (Customer Problem Statement Template):

Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love. A well-articulated customer problem statement allows you and your team to find the ideal solution for your customers' challenges. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

| Problem Statement (PS) | I am (Customer)            | I'm trying to  | But  | Because  | Which makes me feel  |
|------------------------|----------------------------|--|--|--|--|
| PS-1                   | An agricultural researcher | Analyze how environmental factors impact plant growth stages using Power BI visualizations | Current datasets are scattered and lack integration for effective analysis | Different data sources (soil, weather, and management practices) are stored separately | Motivated to create a unified, data-driven approach for agricultural research  |
| PS-2                   | A crop production manager  | Forecast and plan labor and resources based on predicted plant growth stages               | There is limited access to real-time growth stage predictions              | Manual observation delays timely allocation of workers and equipment                   | Confident that predictive analytics can streamline operations and reduce costs |

| Customer Problem Statement Template           |  |  |  |   |
|---|--|--|--|---|
| I am  | I'm trying to  | But  | Because  | Which makes me feel   |
| <p>I am</p> <p>An agricultural researcher</p> | <p>I'm trying to</p> <p>Analyze how environmental factors impact plant growth stages using Power BI visualizations</p> | <p>But</p> <p>Current datasets are scattered and lack integration for effective analysis</p> | <p>Because</p> <p>Different data sources (soil, weather, and management practices) are stored separately</p> | <p>Which makes me feel</p> <p>Motivated to create a unified, data-driven approach for agricultural research</p> |
| <p>A crop production manager</p>              | <p>Forecast and plan labor and resources based on predicted plant growth stages</p>                                    | <p>There is limited access to real-time growth stage predictions</p>                         | <p>Manual observation delays timely allocation of workers and equipment</p>                                  | <p>Confident that predictive analytics can streamline operations and reduce costs</p>                           |

## Conclusion

These problem statements highlight opportunities to simplify analytics, improve decision-making, and enhance productivity in agriculture. Leveraging Power BI for integrated environmental and management data can empower users, optimize resources, and support sustainable, data-driven farming practices.