Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	PNT2025TMID01160
Project Name	Predicting plant growth stages with environmental and management data using Power Bi
Maximum Marks	2 Marks

Problem – Solution Fit Template:

Problem-Solution Fit

1. CUSTOMER SEGMENT(S) `CS`
- Agricultural Researchers and Farmers*-

  Researchers looking for data-driven insights into plant growth stages.- Farmers aiming to optimize crop yields and manage resources efficiently.

6. CUSTOMER LIMITATIONS `CL`
- Limited access to advanced data analytics tools.-
- Lack of expertise in data analysis and visualization.-
- Variability in environmental and management conditions affecting plant growth.

5. AVAILABLE SOLUTIONS `AS`
- Traditional methods of observation and manual recording.-
- Basic software tools with limited analytical capabilities.

Explore AS, differentiate

Define CS, fit into CL

2. PROBLEMS / PAINS `PR`
- Need to accurately predict plant growth stages for better resource allocation.-
- Desire to understand the impact of environmental and management factors on crop growth.

9. PROBLEM ROOT / CAUSE `RC`
- Inconsistent and fragmented data collection methods.-
- Limited integration of environmental and management data into a unified analytical framework.

7. BEHAVIOR `BE`
- Reliance on intuition and experience for decision-making.-
- Reactive rather than proactive management of crop growth stages.

Focus on PR, tap into BE, understand RC

3. TRIGGERS TO ACT `TR`
- High variability in crop yields.- Increased pressure to maximize productivity and sustainability.- Availability of advanced data analytics tools.

10. YOUR SOLUTION `SL`
- Predictive analytics model using Power BI to analyze environmental and management data.- User-friendly visualizations to provide actionable insights into plant growth stages.

8. CHANNELS of BEHAVIOR `CH`
- Transition from manual
- data recording to automated data analysis. Proactive decision-making based on data-driven insights.
- Improved resource allocation and management practices.

4. EMOTIONS `EM`
- ·Before:*- Frustration due to unpredictable crop yields.- Anxiety over resource management.
- *After:*- Confidence in making informed decisions.- Satisfaction with optimized crop yields and efficient resource use.

Identify strong TR & EM

Extract online & offline CH of BE