

Project Initialization and Planning Phase

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| Date | 14 Dec 2024 |
| Team ID | 739961 |
| Project Name Smart Lender | Plant Seedling Classification With Deep Learning |
| Maximum Marks | 3 Marks |

Define Problem Statements (Customer Problem Statement Template):

Farmers and agricultural researchers often face challenges in accurately identifying and classifying plant seedlings, which can lead to inefficiencies in crop management and reduced agricultural productivity. There is a critical need for an automated system that leverages advanced technologies to classify seedlings with precision. Such a system should incorporate key factors such as image recognition, species differentiation, and growth stage identification. By utilizing deep learning techniques to analyze these factors, the solution aims to provide actionable insights for farmers, agronomists, and policymakers. These insights will enable better decision-making, improved crop management, and enhanced agricultural sustainability.

| Problem Statement (PS) | I am (Customer) | I'm trying to | But | Because | Which makes me feel |
|------------------------|------------------------|---|---|--|--|
| PS-1 | A farmer or researcher | Classify plant seedlings accurately | Existing methods are time-consuming and error-prone | Manual identification is inefficient and less reliable | Frustrated with the lack of accurate tools |
| PS-2 | An agricultural expert | Improve seedling classification processes | There's no automated solution for identification | It hinders efficient crop management and decision-making | Concerned about productivity and crop health |