

Project Initialization and Planning Phase

Date	28 November 2024
Team ID	739771
Project Name	Deep fruit veg: Automated Fruit And Veg Identification
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

The increasing demand for efficient and accurate identification of fruits and vegetables in industries such as food processing, retail, and agriculture has highlighted the need for advanced solutions. Traditional methods of sorting, quality control, and crop monitoring are labour-intensive, time-consuming, and prone to errors. There is a significant opportunity to leverage deep learning and computer vision technologies to automate these processes. The challenge is to develop a robust deep learning model capable of accurately classifying a wide variety of fruits and vegetables from images, ensuring consistency, speed, and precision in automated systems for sorting, quality control, and agricultural monitoring. This technology must be able to handle diverse conditions such as varying lighting, different backgrounds, and potential obstructions, offering scalable solutions across various industries.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	I am a business or industry professional in agriculture, food processing, or retail who needs to streamline the identification of fruits and vegetables.	I'm trying to implement an automated system that can accurately identify and classify a wide variety of fruits and vegetables from images in real-time.	But the current methods are timeconsuming, labourintensive, and prone to errors due to manual inspection and sorting. Additionally, these systems lack the precision needed for optimal product quality and crop monitoring.	Because existing technologies do not leverage deep learning or computer vision, they struggle with efficiently handling large volumes of produce or varying environmental conditions like lighting or backgrounds.	Which makes me feel frustrated because the current solutions are insufficient, costly, and slow, affecting productivity and the overall success of my business operations.

