Project Initialization and Planning Phase

Date	19 June 2025
Team ID	SWTID1750170729
Project Name	Deepfruitveg: Automated Fruit And Veg Identification
Maximum Marks	3 Marks

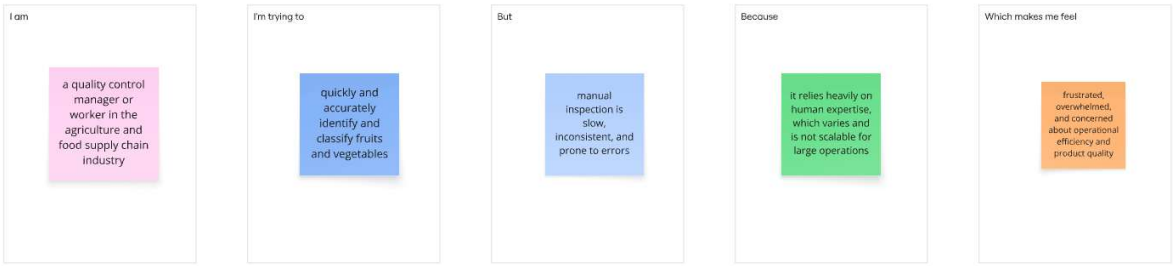
Define Problem Statements (Customer Problem Statement Template):

In the agriculture and food supply chain industries, manual identification and classification of fruits and vegetables remain time-consuming, error-prone, and inefficient. Traditional methods of sorting, quality control, and crop monitoring rely heavily on human expertise, leading to inconsistencies, delays, and increased labour costs. Additionally, detecting early signs of disease or stress in crops often requires expert inspection, which may not be scalable or feasible in large-scale operations.

There is a need for an automated, accurate, and scalable solution that can analyse visual characteristics of produce and crops to streamline operations across food processing plants, supermarkets, and agricultural fields. The challenge lies in developing a robust deep learning model capable of identifying diverse types of fruits and vegetables under varying conditions such as lighting, background noise, occlusions, and quality degradation.

Reference: https://miro.com/templates/customer-problem-statement/

Example:



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	a quality control manager in a food processing plant	accurately sort fruits and vegetables	manual sorting is slow and inconsistent	it depends on human judgment and is prone to errors	frustrated and concerned about quality
PS-2	a farm supervisor	detect early signs of disease in crops	expert inspection is not scalable or feasible	large fields require constant monitoring by skilled personnel	overwhelmed and worried about losses