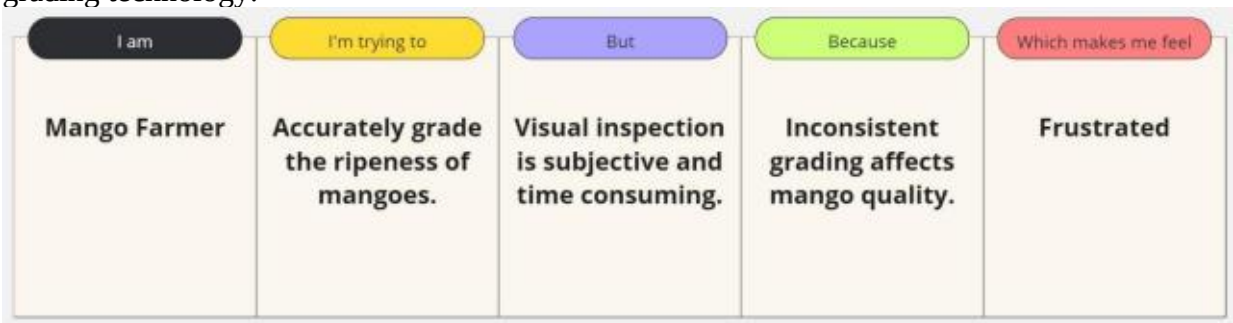
Project Initialization and Planning Phase

Date	7 July 2024
Team ID	SWTID1720080895
Project Name	RIPE-SENSE: MANGO QUALITY GRADING WITH IMAGE ANALYSISAND DEEP LEARNING.
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):
The project seeks to address the challenges associated with manually assessing mango quality and ripeness, which can be subjective and labor-intensive. RIPE-SENSE aims to develop an automated mango quality grading system using deep learning-based image analysis to evaluate external features such as color, shape, and size. By offering a non-destructive, cost-effective, and scalable solution, RIPE-SENSE intends to revolutionize mango grading across various agricultural settings. With real-time feedback and improved accuracy, the system has the potential to boost the competitiveness of mango producers and exporters in the global market while also driving advancements in fruit quality grading technology.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	1. I cultivate mangoes for commercial sales. 2. My operations prioritize quality and efficiency. 3. I am budget-conscious and require financially viable solutions for my farm.	My primary goal is to accurately grade the ripeness of my mangoes at harvest.	Currently, I rely on visual inspection to assess ripeness, which is subjective and time-consuming. Subtle variations in color and firmness can be difficult to detect consistently by eye.	The lack of consistent and objective grading results in inaccurate assessments of ripeness. Consequently, mangoes may be shipped either too early or too late, affecting their quality upon arrival at stores.	This inconsistency causes me frustration as it can lead to lost sales due to poor quality fruit reaching consumers.