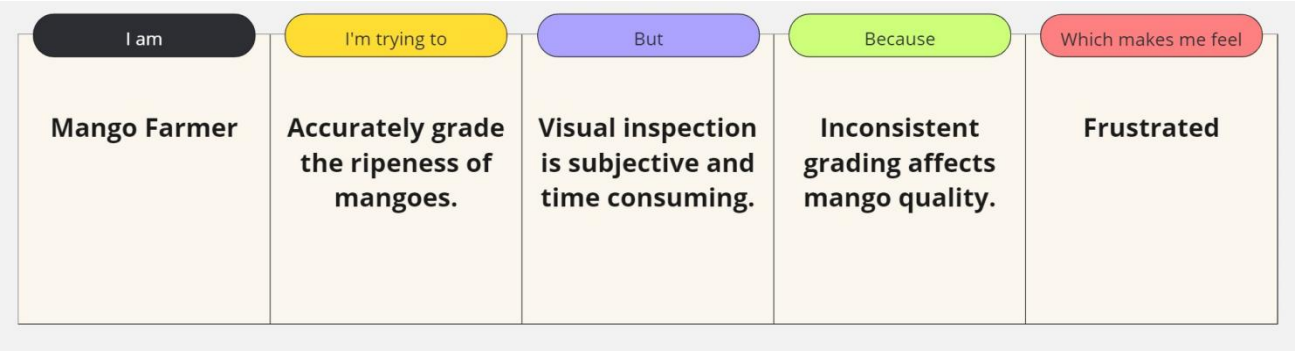
Project Initialization and Planning Phase

Date	19 April 2024
Team ID	**738194**
Project Name	RIPE-SENSE: MANGO QUALITY GRADING WITH IMAGE ANALYSIS AND DEEP LEARNING.
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

The project aims to tackle the challenges inherent in manually assessing mango quality and ripeness, which can be subjective and labor-intensive. RIPE-SENSE proposes to develop an automated mango quality grading system utilizing deep learning-based image analysis to evaluate external features such as color, shape, and size. By providing a non-destructive, cost-effective, and scalable solution, RIPE-SENSE aims to revolutionize mango grading across various agricultural settings. Through real-time feedback and improved accuracy, the system has the potential to enhance 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 am a mango farmer, growing mangoes for commercial sale. 2. I am focused on quality and efficiency in my operations. 3. I am cost-conscious and need solutions that are financially viable 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.	This lack of consistent and objective grading leads to inaccurate assessments of ripeness. As a result, mangoes may be shipped too early or too late, impacting 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.