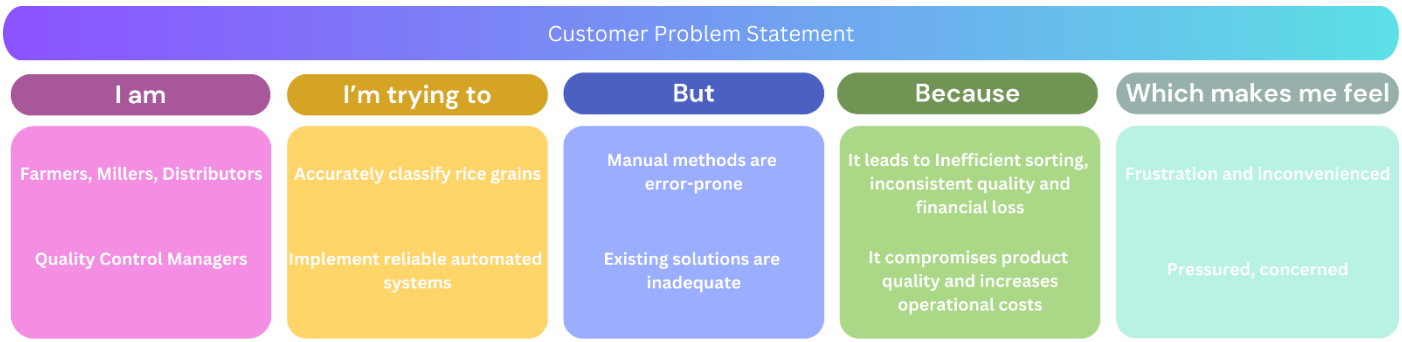
Project Initialization and Planning Phase

Date	4 June 2024
Team ID	SWTID1720109344
Project Name	Rice Type Classification Using CNN
Maximum Marks	3 Marks

Problem Statement

Rice classification is an important tool for maintaining the quality, efficiency and cost-effectiveness in the farming industry. People such as farmers, millers and distributors are in need of accurate rice classification techniques to classify rice grain into different categories to ensure the quality of the rice, increase efficiency in the sorting process and to meet market standards. Right now, classifying rice is often a manual and time-consuming task, not to mention it may be prone to errors.

The aim of this project is to develop a CNN (convolutional neural network) model that can quickly and accurately classify different types of rice. This model could be embedded in the rice processing workflow to enhance the efficiency and reduce the variability.



Stakeholders	Goal	Challenge	Impact	Feeling
Farmers, Millers, Distributors	Accurately classify rice grains	Manual methods are error-prone	Inefficient sorting, inconsistent quality, financial loss	Frustration, inefficiency
Quality Control Managers	Implement reliable automated systems	Existing solutions are inadequate	Compromised product quality, increased operational costs	Pressure, concern

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Farmers, Millers, Distributors	Accurately classify rice grains	Manual methods are error-prone	It leads to inefficient sorting, inconsistent quality and financial loss	Frustration and inconvenienced
PS-2	Quality Control Managers	Implement reliable automated systems	Existing solutions are inadequate	It compromises product quality and increases operational costs	Pressured, concerned