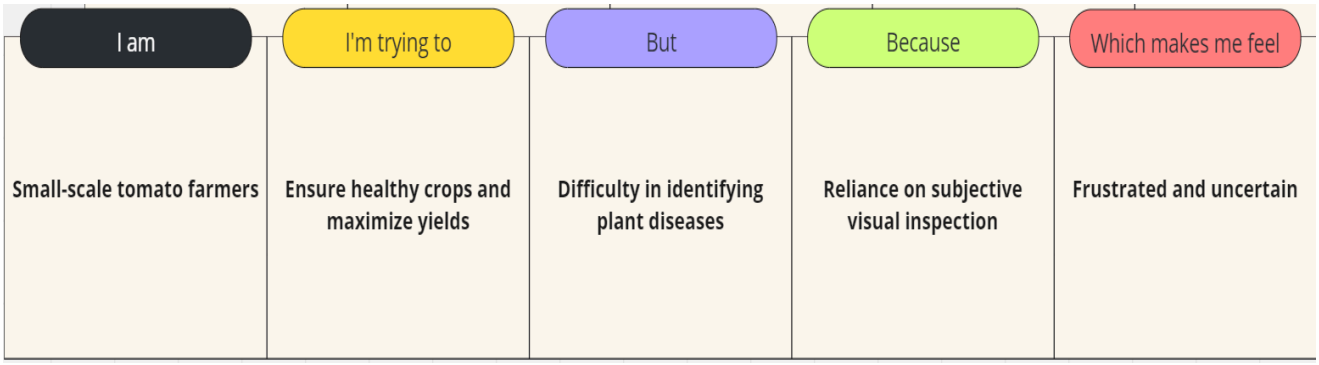
Project Initialization and Planning Phase

Date	15 June 2024
Team ID	SWTID1720033149
Project Name	Visual Diagnostics: Detecting Tomato Plant Diseases With Leaf Image Analysis
Maximum Marks	3 Marks

Define Problem Statements (Customer Problem Statement Template):

Tomato farmers face significant challenges in accurately diagnosing plant diseases due to reliance on subjective visual inspection and costly, time-consuming lab tests. This uncertainty leads to delayed treatment decisions, increased production costs, and reduced crop yields. To address these issues, we aim to develop a user-friendly and cost-effective diagnostic tool utilizing advanced image analysis techniques like deep learning. This tool will enable farmers to quickly and accurately identify diseases from tomato leaf images, providing real-time diagnosis. By enhancing farmers' ability to manage crop health effectively, our solution seeks to minimize economic losses, optimize resource use, and promote sustainable agricultural practices.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
Ineffective disease diagnosis	Small-scale tomato farmers	Ensure healthy crops and maximize yields	Difficulty in identifying plant diseases	Reliance on subjective visual inspections	Frustrated and uncertain
High cost of disease management	Commercial tomato growers/harvesters	Reduce operational costs and maintain crop health	Expensive lab tests for disease diagnosis	Lack of affordable diagnostic tools	Financially strained and dissatisfied