Ideation Phase
Define the Problem Statements

Team ID	LTVIP2025TMID38189
Project Name	smart sorting: transfer learning for identifying rotten fruits and vegetables
Maximum Marks	2 Marks

Customer Problem Statement Template:

In agricultural markets, supermarkets, and supply chains, manual inspection of fruits and vegetables for rot or spoilage is time-consuming, inconsistent, and error-prone. Traditional image classification models often require large datasets and extensive training time, which may not be feasible in dynamic environments where rapid deployment is needed.

The goal of this project is to develop a smart sorting system using transfer learning to accurately and efficiently identify rotten fruits and vegetables from fresh ones using images.

Example:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A quality control manager	Identify rotten vegetables during sorting	I miss many spoiled ones	They look similar to fresh ones and human inspection is low	Frustrated and inefficient
PS-2	An AI Engineer	Train a model to detect fruit spoilage	I don't get high accuracy	I have a limited labelled dataset and variations in lighting	Stuck and concerned about performance