

## Ideation Phase

### Define the Problem Statements

Date	31 January 2025
Team ID	LTVIP2026TMID91218
Project Name	Transferring learning for rotten and fresh fruits
Maximum Marks	2 Marks

#### **Customer Problem Statement Template:**

Customers such as farmers, wholesalers, retailers, and food processing industries face a major challenge in identifying rotten fruits and vegetables accurately and at an early stage. Currently, quality inspection is largely done through manual observation, which is time-consuming, inconsistent, and highly dependent on human judgment. This often leads to errors, increased food wastage, and financial losses.

**Due to the absence of an automated and reliable system, customers struggle with:**

- Late detection of spoilage
- Reduced product quality reaching consumers
- Increased operational costs
- Difficulty in maintaining food safety standards

The customer requires a fast, accurate, and automated solution that can classify fruits and vegetables as fresh or rotten using images. Such a system should work efficiently with minimal human intervention and be adaptable to real-world environments like markets, warehouses, and supply chains.

The proposed solution using transfer learning-based image classification directly addresses this problem by enabling accurate detection of spoilage, reducing waste, improving decision-making, and ensuring better quality control across the food distribution process.

#### **Example:**

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Im facing issues while finding out good fruits and vegetables	Solve this	Don't know how to solve	Im lack of information about this machine learning	With simple image identification system

PS-2	I am also facing this issue but in vegetables	Solve this	Don't know how to	Lack of awareness	Making a good software that identifies
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