

## Ideation Phase

### Define the Problem Statements

Date	
Team ID	LTVIP2026TMIDS40761
Project Name	Online Payments Fraud Detection using ml
Maximum Marks	2 Marks

#### Customer Problem Statement:

Due to the rapid increase in digital transactions, customers are facing serious risks of online payment fraud such as unauthorized transactions, identity theft, and phishing attacks. Many users experience financial losses and inconvenience due to delayed fraud detection or false alerts blocking genuine transactions. Therefore, there is a need for a secure and intelligent fraud detection system that can accurately identify fraudulent activities in real time while ensuring a smooth and safe payment experience for customers.

I am	An online banking / digital payment user	Make secure online transactions quickly and conveniently
I'm trying to	Make secure online transactions quickly	There is a risk of fraudulent transactions happening without my knowledge
But	There is a risk of fraudulent transactions.	Traditional rule-based systems cannot effectively detect new and complex fraud patterns in real time.
Because	Traditional rule-based systems cannot effectively detect new and complex fraud patterns in real time.	Anxious, insecure, and worried about financial loss
Which makes me feel	Completely and complexly stressed out by the recent statement in real time!	Anxious, insecure, and worried about financial loss

Reference: <https://miro.com/templates/customer-problem-statement/>

Problem Statement (PS-1)					
I am (Customer)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	An online banking / digital payment user	Make secure online transactions quickly and conveniently	Traditional rule-based systems cannot effectively detect new and complex fraud patterns in real time.	Anxious, insecure, and worried about financial loss	
PS-2	A financial institution / online payment service provider	Protect customers from fraudulent transactions, while maintaining smooth transaction processing		Concerned about financial losses, customer trust, and brand reputation	
PS-2	A financial institution / online payment service provider	Fraudulent transactions are rare and difficult to identify due to severe class imbalance in the dataset			