

Ideation Phase

Define the Problem Statements

Date	10 February 2025
Team ID	LTVIP2026TMIDS54394
Project Name	Online Payments Fraud Detection using Machine Learning
Maximum Marks	2 Marks

Customer Problem Statement Template:

With the rapid growth of digital transactions such as UPI, credit card, and online banking payments, the risk of fraudulent transactions has significantly increased. Many users face unauthorized transactions, identity theft, and financial losses due to online payment fraud.

Traditional rule-based fraud detection systems are not always effective in detecting complex and evolving fraud patterns. Financial institutions require an intelligent system that can analyze transaction data and detect fraudulent activities in real time.

There is a strong need for a machine learning-based fraud detection system that uses historical transaction data to identify suspicious activities and prevent financial loss.

I am	Describe customer with 3-4 key characteristics - who are they?	Describe the customer and their attributes here
I'm trying to	List their outcome or "Job" the care about - what are they trying to achieve?	List the thing they are trying to achieve here
but	Describe what problems or barriers stand in the way - what bothers them most?	Describe the problems or barriers that get in the way here
because	Enter the "root cause" of why the problem or barrier exists - what needs to be solved?	Describe the reason the problems or barriers exist
which makes me feel	Describe the emotions from the customer's point of view - how does it impact them emotionally?	Describe the emotions the result from experiencing the problems or barriers

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

Example:

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	Online Payment User	Make secure digital payments	My transaction gets blocked or misused	Fraudsters hack payment systems	Worried and insecure
PS-2	Bank Manager	Reduce fraud transactions	Fraud detection is not always accurate	Traditional systems miss complex fraud	Concerned about financial losses

Importance of Fraud Detection

- Online payment fraud detection is important because:
- It protects customers from financial loss
- It improves trust in digital payment systems
- It helps banks reduce operational risks
- It prevents unauthorized transactions