

Ideation Phase

Empathize & Discover

Date	13 February 2026
Team ID	LTVIP2026TMIDS42974
Project Name	Online Payments Fraud Detection using Machine Learning
Maximum Marks	4 Marks

Empathy Map Canvas:

An empathy map helps the team deeply understand users by capturing what they think, feel, see, hear, say, and do. It enables building solutions grounded in real user needs and constraints.

Target User Persona: Small & Marginal Farmer (Rain-dependent region in India)

	THINKS & FEELS <ul style="list-style-type: none"> • Worried about unauthorized transactions • Concerned about losing hard-earned money • Hopes for secure and instant fraud detection. 	
SEES <ul style="list-style-type: none"> • Increasing news about cyber fraud cases • Suspicious transaction alerts from banks • OTP requests for unknown payments 		HEARS <ul style="list-style-type: none"> • Bank warnings about phishing and fraud • Advice to not share OTPs or passwords • Social media posts about hacked accounts.
	SAYS & DOES <ul style="list-style-type: none"> • Frequently checks transaction history • Enables SMS/email transaction alerts • Immediately reports suspicious activity 	

PAINS

- Financial loss due to fraud
- Delay in refund or investigation process
- False transaction blocks affecting genuine payments
- Loss of trust in digital platforms

GAINS

- Real-time fraud detection and alerts
- Secure and seamless transactions
- Reduced financial risk
- Increased trust in online payment systems

How Our Solution Helps

The Machine Learning-based Online Payment Fraud Detection System analyzes transaction behavior patterns, detects anomalies in real-time, and flags suspicious activities instantly. This enhances transaction security, reduces financial loss, and builds trust for customers, banks, and payment platforms.