

## Ideation Phase

### Empathize & Discover

|               |  |
|---------------|--|
| Date          | 13 February 2026                                       |
| Team ID       | LTVIP2026TMIDS84813                                    |
| 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)

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

## **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.