

Project Design Phase

Problem – Solution Fit Template

Date	12 February 2026
Team ID	LTVIP2026TMIDS54415
Project Name	Online Payment Fraud Detection using Machine Learning
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why.

Purpose:

- Solve complex problems in a way that fits the state of your customers.
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- Sharpen your communication and marketing strategy with the right triggers and messaging.
- Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- Understand the existing situation in order to improve it for your target group.

Template:

Problem–Solution Fit			
Online Payment Fraud Detection Using Machine Learning			
#1 CUSTOMER Strong TBM <p>#1 USER PROBLEM</p> <ul style="list-style-type: none"> • Online payment users fakes • Unauthorized transactions • Credit/debit card fraud • Phishing and identity theft • Delayed fraud detection • Financial losses due to late action • False transaction blocking affecting genuine users <p>Fraudsters continuously evolve tactics, making traditional rule-based systems insufficient.</p>	#2 Focus on ALP, Tap Into BE, Understand RC <p>#2 TARGET CUSTOMERS</p> <ul style="list-style-type: none"> • Digital payment users (UPI, Credit / Debit card users) • Banks and Financial Institutions • Payment Gateway Providers • Fraud Analysts & Risk Management Teams 	#3 ICUSTOMER AMRES <p>#3 CUSTOMER PAIN POINTS (BEHAVIORAL PATTERNS)</p> <ul style="list-style-type: none"> • Frequently checking bank balance after transactions • Fear of sharing OTP, or payment details • Hesitation while making high-value payments • Calling bank customer care after suspicious alerts • Avoiding online transactions due to lack of trust 	
#4 HOW THE SOLUTION SOLVES THE PROBLEM <p>Fraud detected too late</p> <ul style="list-style-type: none"> • Real-time ML prediction within milliseconds • Manual monitoring ineffective • Automated ML-based anomaly detection • Delayed fraud detection and blocking <p>Fraudsters continuously evolve tactics, making traditional rule-based systems insufficient.</p>	#5 HOW THE SOLUTION SOLVES THE PROBLEM <ul style="list-style-type: none"> • Fraud detected too late • Manual monitoring ineffective • Automated ML-based anomaly detection • Early fraud in instant alerts to users and banks 	#6 BEHAVIORAL FIT (WHY IT WORKS) <ul style="list-style-type: none"> • The system integrates into existing payment workflows: • Works during normal transaction process • Uses real-time API integration with payment • Sends alerts via existing channels (SMS/Email/App) • Provides dashboard for banks without changing user behavior <p>& Faster fraud detection</p> <ul style="list-style-type: none"> • Reduced false positives • Improved fraud detection accuracy 	#7 VALUE PROPOSITION <p>For Users:</p> <ul style="list-style-type: none"> • Secure and stress-free online transactions • Immediate fraud alerts • Reduced financial risk <p>For Banks:</p> <ul style="list-style-type: none"> • Reduced fraud losses • Better fraud analytics • Improved customer trust <p>For Businesses:</p> <ul style="list-style-type: none"> • Increased digital payment adoption • Stronger brand reliability