

# Project Design Phase

## Problem – Solution Fit

Date	15 February 2025
Team ID	
Project Name	Online Payments Fraud Detection Using Machine Learning
Maximum Marks	2 Marks

### Problem – Solution Fit Template:

Problem–Solution Fit ensures that the identified problem of online payment fraud is effectively solved through a machine learning-based detection system. The proposed solution analyzes transaction behavior, detects anomalies, and prevents fraudulent financial activities in real time.

### Purpose:

- Solve increasing digital payment fraud using intelligent machine learning techniques.
- Improve transaction security and user trust in online payment platforms.
- Enable faster fraud detection compared to traditional rule-based systems.
- Reduce financial loss for banks, fintech companies, and customers.
- Understand transaction behavior patterns to continuously improve fraud prevention.

### Problem–Solution Fit Canvas:

Customer Segments	Problems	Available Solutions
Banks, FinTech Platforms, Online Payment Users	Risks of fraudulent transactions, identity theft, unauthorized payments	Machine learning-based fraud detection
Value Proposition	Behavior	Triggers
Real-time fraud detection with high accuracy	Users demand fast, secure, and reliable transactions	Increased digital transactions and cyber threats
Solution	Channels	Expected Outcome
Random Forest ML model analyzing transaction patterns	Integrated with banking/payment systems	Secure ecosystem, reduced fraud, improved user experience

### References:

- <https://www.ideahackers.network/problem-solution-fit-canvas/>
- <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>