

## Hackathon Problem Statements

### 1. E-commerce Platform with Role-Based Access

Problem Statement:

Small and medium-sized businesses often struggle to onboard quickly onto digital platforms, while customers need a secure and seamless shopping experience. There is a need for a unified e-commerce platform that supports customers, businesses, and administrators with clear role-based workflows.

Objective:

Design and develop a scalable e-commerce platform where customers can browse and purchase products, businesses can register and manage their product catalogs, and administrators can verify and approve businesses.

Key Requirements:

- User authentication and authorization using JWT
- Customer features: browse products, add to cart, place orders, view order history
- Business features: registration, admin approval, product catalog CRUD operations
- Admin features: approve/reject businesses, manage platform data
- Secure APIs, role-based access control, and basic analytics

### 2. Smart Expense Tracker Platform

Problem Statement:

Individuals often find it difficult to track daily expenses and manage recurring financial commitments such as EMIs. Manual tracking leads to errors and poor financial planning.

Objective:

Build an intelligent expense tracker platform that helps users log expenses, automatically track EMIs, and generate meaningful financial insights.

Key Requirements:

- User authentication and secure data storage
- Manual expense logging with categories
- EMI management: auto-add recurring EMIs and calculate totals
- Monthly and yearly expense summaries
- Basic analytics and visualization of spending pattern

### **3. The Neighborhood Lending Library (Resource Sharing Platform)**

**Problem Statement:**

People frequently purchase items such as tools, appliances, or games that are rarely used, leading to unnecessary expenses and environmental waste.

**Objective:**

Create a neighborhood-based resource sharing platform where verified users can lend and borrow items within their local community.

**Key Requirements:**

- User registration and verification
- Item management: create, update, delete, and view items available for lending
- Search and filter items based on location and category
- Messaging system for users to coordinate lending and pickups
- Basic trust and safety mechanisms (ratings or reports)