Problem Statement 1: Decentralized Emergency Loan Networks for Underserved Communities

Overview

Millions in low-income/rural areas lack access to formal credit due to the absence of credit history, collateral, or banking infrastructure. Develop a **peer-to-peer (P2P) emergency loan platform** that uses **social trust scoring and blockchain** to enable microloans without traditional credit scores.

Key Challenges & Execution Feasibility

✅ **Quantifying Social Trust:**

- Implement a **basic reputation system** using community referrals or past transactions.
- Use alternative data (mobile wallet usage, utility bill payments, or social media activity) **without complex AI**.

✅ **Fraud Prevention:**

- Simulate blockchain with a **Flask/Django backend and a simple hashed ledger**.
- Implement basic **identity verification** using OTP-based authentication.

✅ **Incentivizing Lenders:**

- Gamify lending with badges (e.g., "Top Community Supporter").
- Keep lending interest models **simple** (e.g., minimal returns like 1-2% APR).

✅ **Accessibility:**

- **Use Twilio for SMS-based loan requests** instead of complex mobile apps.
- Provide local language compatibility (e.g., Hindi, Tamil, Marathi).

Technical Considerations

- **Blockchain Simulation:** Use Hyperledger Fabric/Ethereum **or mock it using a database ledger**.
- **Trust Scoring:** Implement a **basic points-based model** rather than a complex ML-based model.
- **UI/UX:** Simple web dashboard or **WhatsApp chatbot** for loan requests.

Expected Outcomes

- A prototype demonstrating **loan issuance, repayment tracking, and trust scoring**.
- A roadmap to scale with real-world organizations (NGOs, microfinance bodies).

Problem Statement 2: AI-Driven Financial Behavior Modification

Overview

Young adults struggle with **impulse spending and a lack of savings discipline**. Develop an **AI-powered financial assistant** that helps users **curb unnecessary expenses** and **automate savings** through personalised real-time nudges.

Key Challenges & Execution Feasibility

✅ **Behavioral Insights:**

- Instead of real banking data, use **mock datasets** or **synthetic spending records**.
- Classify expenses into **"needs" vs. "wants" using simple rule-based logic**.

✅ **Effective Nudges:**

- **Set spending alerts** (e.g., "You've spent ₹2000 on food delivery this week!").
- Implement **gamified savings** (e.g., "Save ₹100 more this week to unlock rewards").

✅ **Privacy & Trust:**

- Ensure **end-to-end encryption** (basic hashing methods for user data).
- Allow users to **opt out** of financial tracking.

Technical Considerations

- **AI/ML:** Use TensorFlow/PyTorch **or simple Python-based classification models**.
- **APIs:** Integrate with Razorpay, Plaid **or mock bank APIs**.
- **UI/UX:** WhatsApp-based chatbot **or a lightweight mobile/web app**.

Expected Outcomes

- A working **chatbot/app** that provides **real-time nudges and savings insights**.
- A brief **user testing report** showing spending behavior changes.

Judging Criteria

Criteria	Weightage	Description
Innovation	25%	Uniqueness of the approach (e.g., novel blockchain/AI use).
Technical Complexity	25%	Feasibility and implementation depth (smart contracts, ML models).
User Experience	20%	Accessibility, ease of use for non-tech users.
Scalability	15%	Potential for real-world deployment.
Impact	15%	Social and financial benefits for underserved groups.

Submission Checklist

✅ Prototype (GitHub repo + demo video)
✅ Pitch deck (5 slides max)
✅ Team details (names, roles)