



CODECELL-CMPN,VESIT

SYRUS HACKATHON 2025

Category Code: C1

Problem Statement Title: Nirman

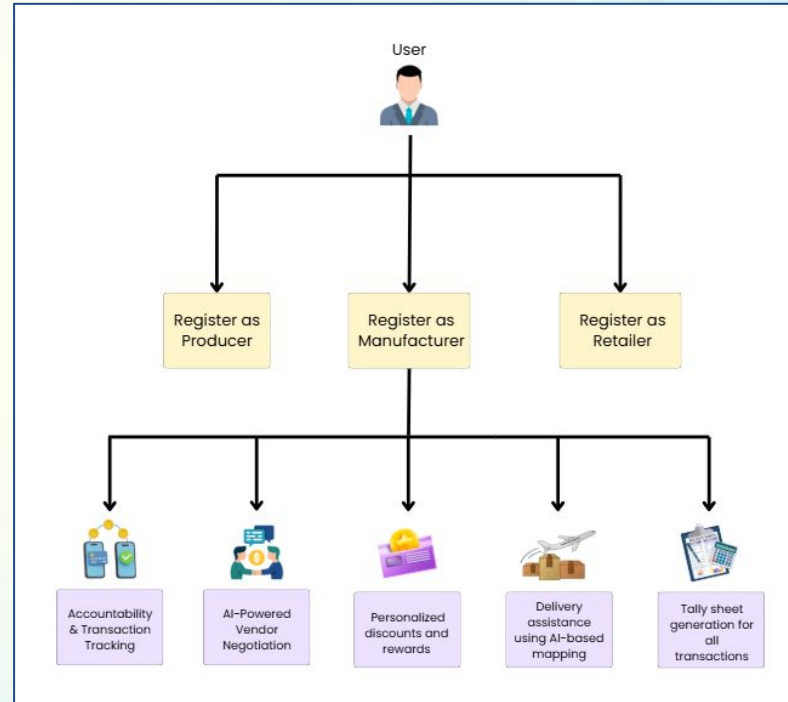
Team Name: ByteMeHard

Institute Name: Vivekanand Education Society's Institute of Technology



Idea / Approach details (& implemented features)

Nirman leverages AI to **optimize vendor negotiations, enhance customer retention, streamline deliveries, and automate financial management** for manufacturers and retailers. It **secures better deals, reduces costs, boosts sales through AI-driven rewards, and provides real-time financial insights**—empowering businesses to scale efficiently and maximize profitability.



Features Implemented

1. AI-Powered Negotiation:

AI optimizes pricing and structures real-time deals.

Multi-Party & Sentiment Analysis: Supports simultaneous negotiations and evaluates negotiation tone for better outcomes.

2. Reward System:

Incentivized Engagement: Loyalty points for transactions, feedback, and milestones.

3. Accountability & Tracking : End-to-End Visibility: Tracks every transaction phase.



AI-Powered Negotiator

Uses market trends and supplier data to automate contract negotiations and secure the best procurement deals.



Customer Retention System

Personalized AI-driven rewards, discounts, and engagement strategies to boost customer loyalty.



Automated Balance Sheet

Real-time tracking of financial transactions, expense analysis, and profitability insights to enhance financial decision-making.



Innovation and Technologies used

Frontend Development

Framework: ReactJS



Styling: Tailwind CSS



Components: ShadCN



Charts: ChartJS



Backend Development

- Framework: Node.js
- API: Express.js
- AI: Python (TensorFlow)
- Payments: Stripe/Razorpay
- Real-Time: Socket.io
- Automation: CRON Jobs

AI/Blockchain

Gen AI Models:

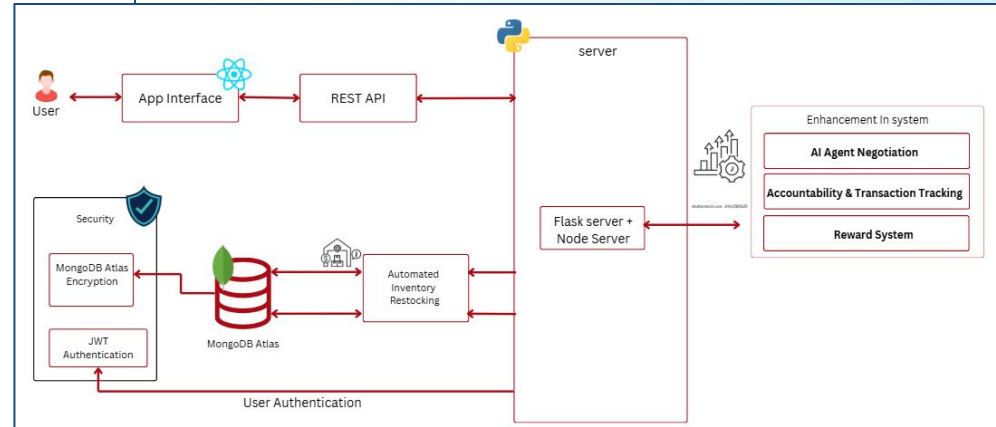
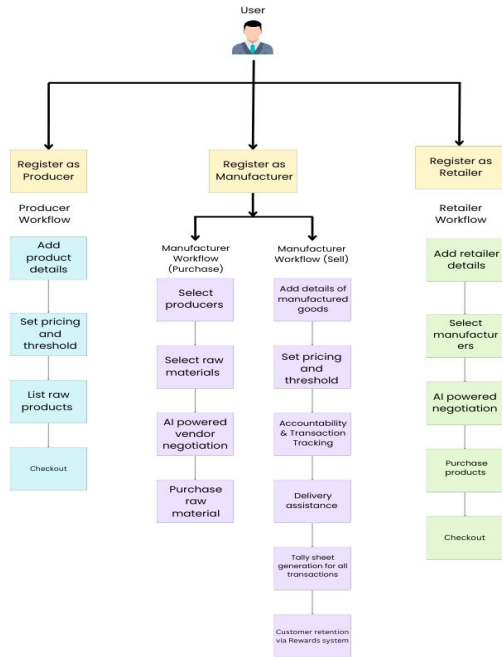
- **Gemini API** – For intelligent decision-making and dynamic customer engagement.
- **Groq API** – For high-speed AI processing and predictive analytics.
- **LangChain** – To manage and store chat history for seamless AI-driven interactions.

HardHat, Solidity: Real time audits

Payment: Razorpay

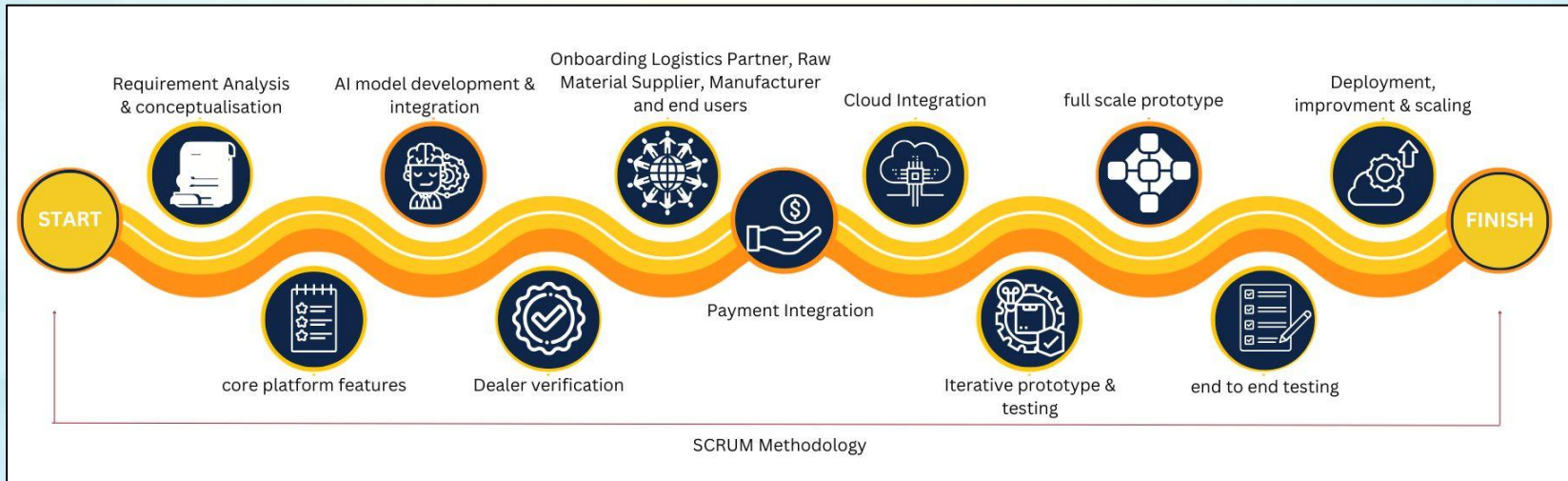


Flow Diagram/ Architecture

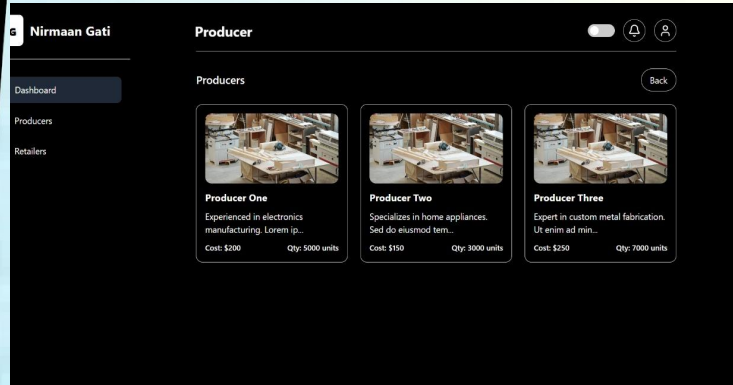
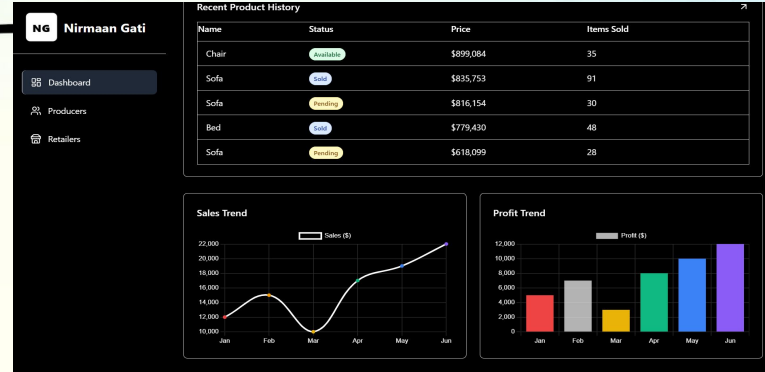
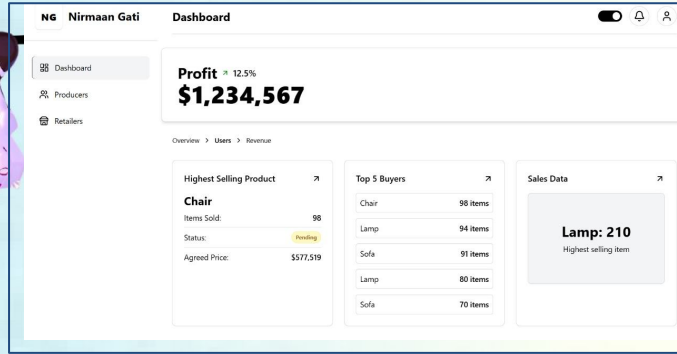


Future Scope

- Government Scheme & Subsidy Support.
- Manufacturer Tax & Duties filing automation.



Implementation



Available Products

steel chassis

Price: \$1000
Available Quantity: 50 units
Manufacturer: N/A

Negotiate Price

respond to your offer shortly.

"I understand you're looking to get both units for \$1400. While the 30% discount is a bit steep, I can offer you a final price of \$1800."

1600 final

Okay, I understand your offer of \$1600. I can offer you a final price of \$1600.

Type your message...

