SYRUS HACKATHON 2025

Category Code: C1

Problem Statement Title: Nirman

Team Name: ByteMeHard

Institute Name: Vivekanand Education Society's Institute of Technology

UPTIQ · unstop · Github · sprect · Rotary Club Bombay Chembur West · interview buddy · appwrite · .xyz · fueler · Interview Cake

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.

Implemented features : Used Gemini API to facilitate real-time price and term negotiations between retailers and manufacturers.

FEATURES

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.

Smart Delivery Management
AI-optimized route planning, real-time tracking, and partner integration for cost-effective and timely deliveries.

Innovation (Showstopper)

1. **AI-Powered Negotiation**
Dynamic Pricing & Automated Deals: AI optimizes pricing and structures real-time deals.
Multi-Party & Sentiment Analysis: Supports simultaneous negotiations and evaluates negotiation tone for better outcomes.
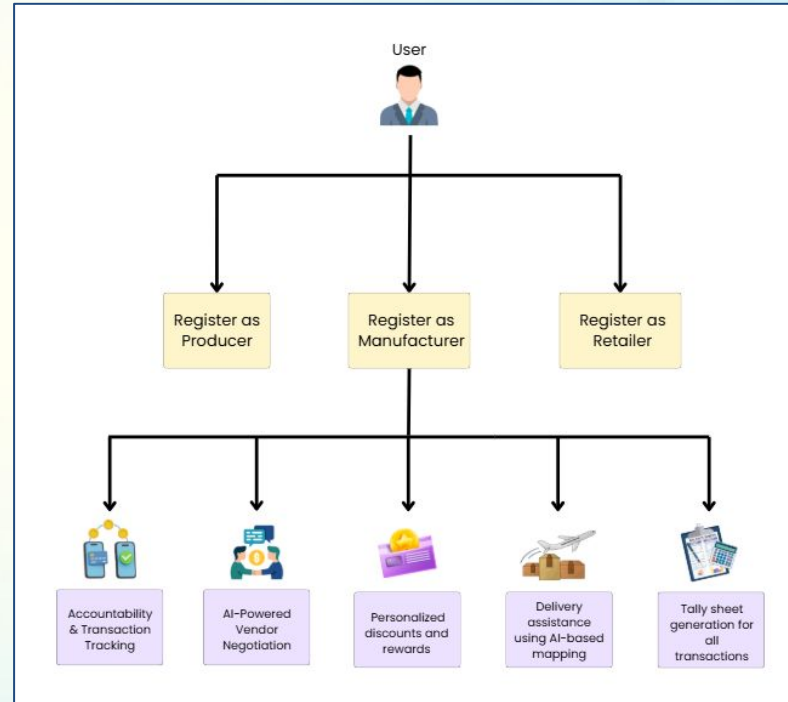**2**. **Reward System**
Incentivized Engagement: Loyalty points for transactions, feedback, and milestones.
3. **Accountability & Tracking**
End-to-End Visibility: Tracks every transaction phase.
Blockchain Records: Ensures tamper-proof logs and real-time audits.
4. Multilingual Support & Text to Speech support

Tech Stack

Frontend Development

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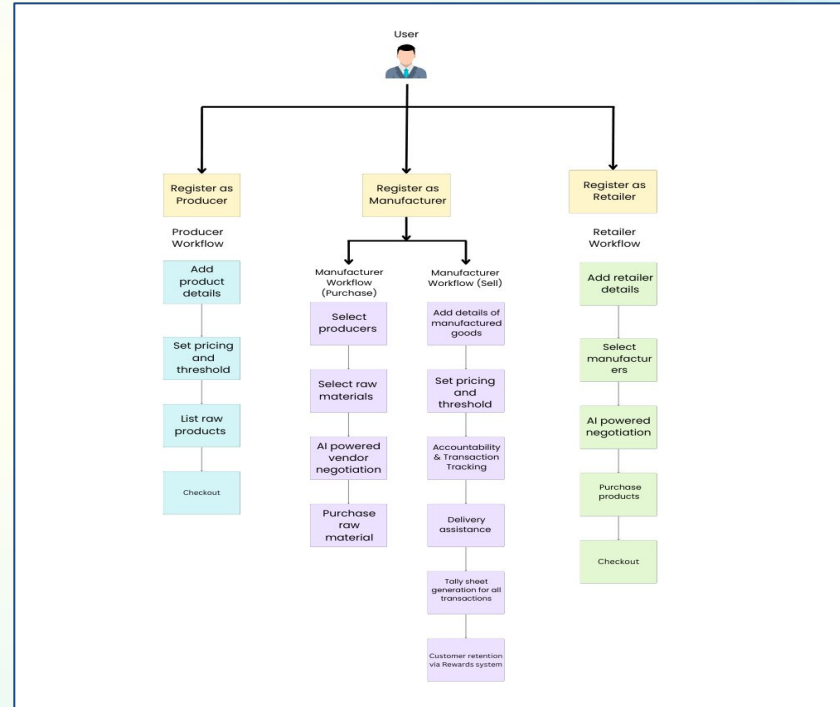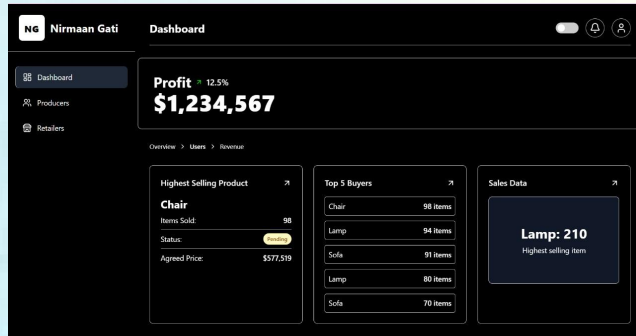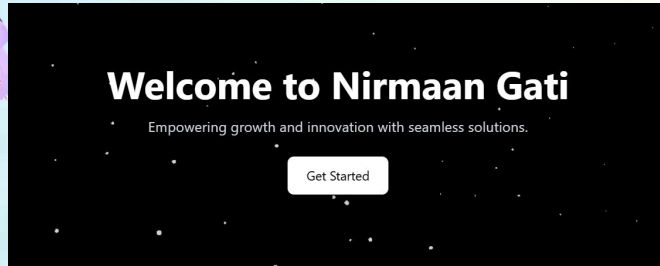- **Gemini API –** For intelligent decision-making and dynamic customer engagement.
- **Groq API –** For high-speed AI processing and predictive analytics.
- **LangChain –** To manage and store chat history for seamless AI-driven interactions.

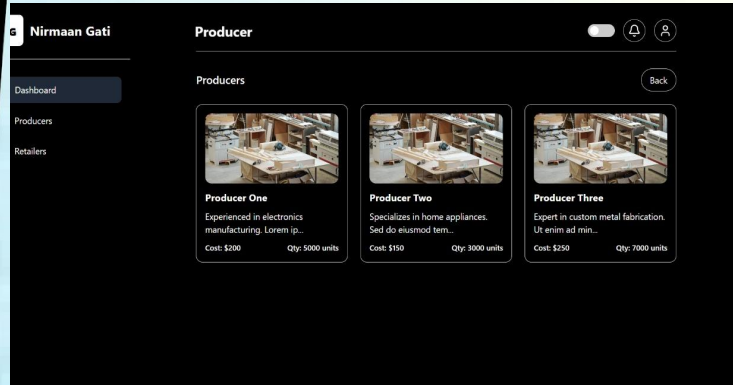**HardHat, Solidity:** Real time audits
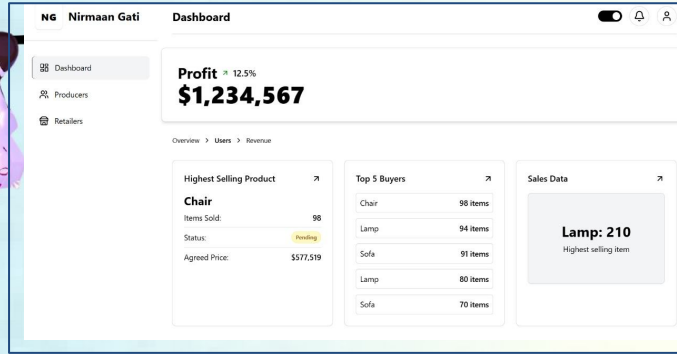
Payment: Razorpay

Implementation/Prototype/Use Case Diagram (screenshots)

Implementation

Future Objectives

Requirement Analysis & conceptualisation

AI model development & integration

Onboarding Logistics Partner, Raw Material Supplier, Manufacturer and end users

Cloud Integration

full scale prototype

Deployment, improvment & scaling

START

FINISH

core platform features

Dealer verification

Payment Integration

Iterative prototype & testing

end to end testing

SCRUM Methodology