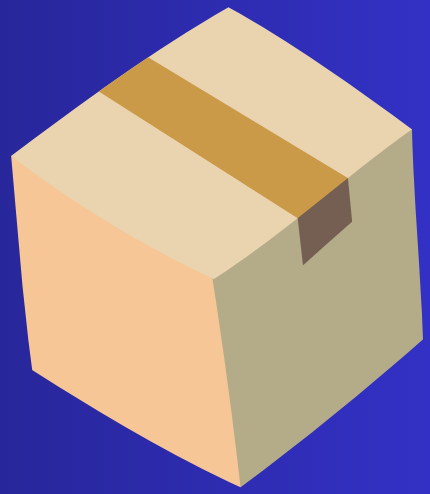
INNOFUSION 1.0



LOGCHAIN

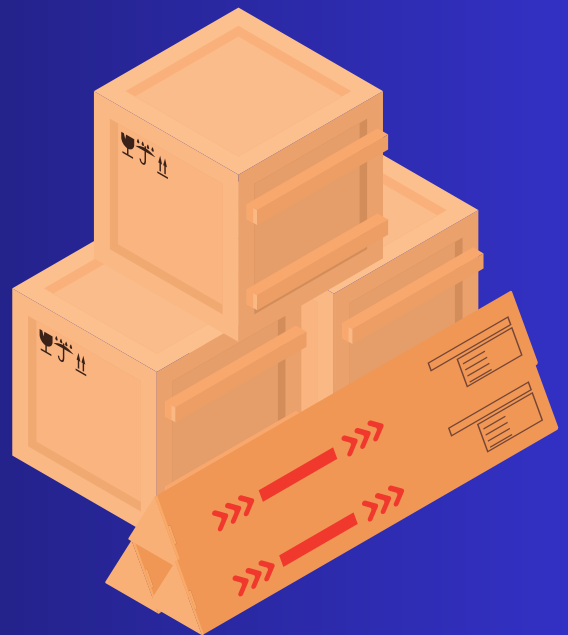
PROBLEM STATEMENT

A platform that uses blockchain to track the production, shipment, and delivery of basic necessary products, ensuring demand of the products, review rates, and reducing scarcity products in the market.

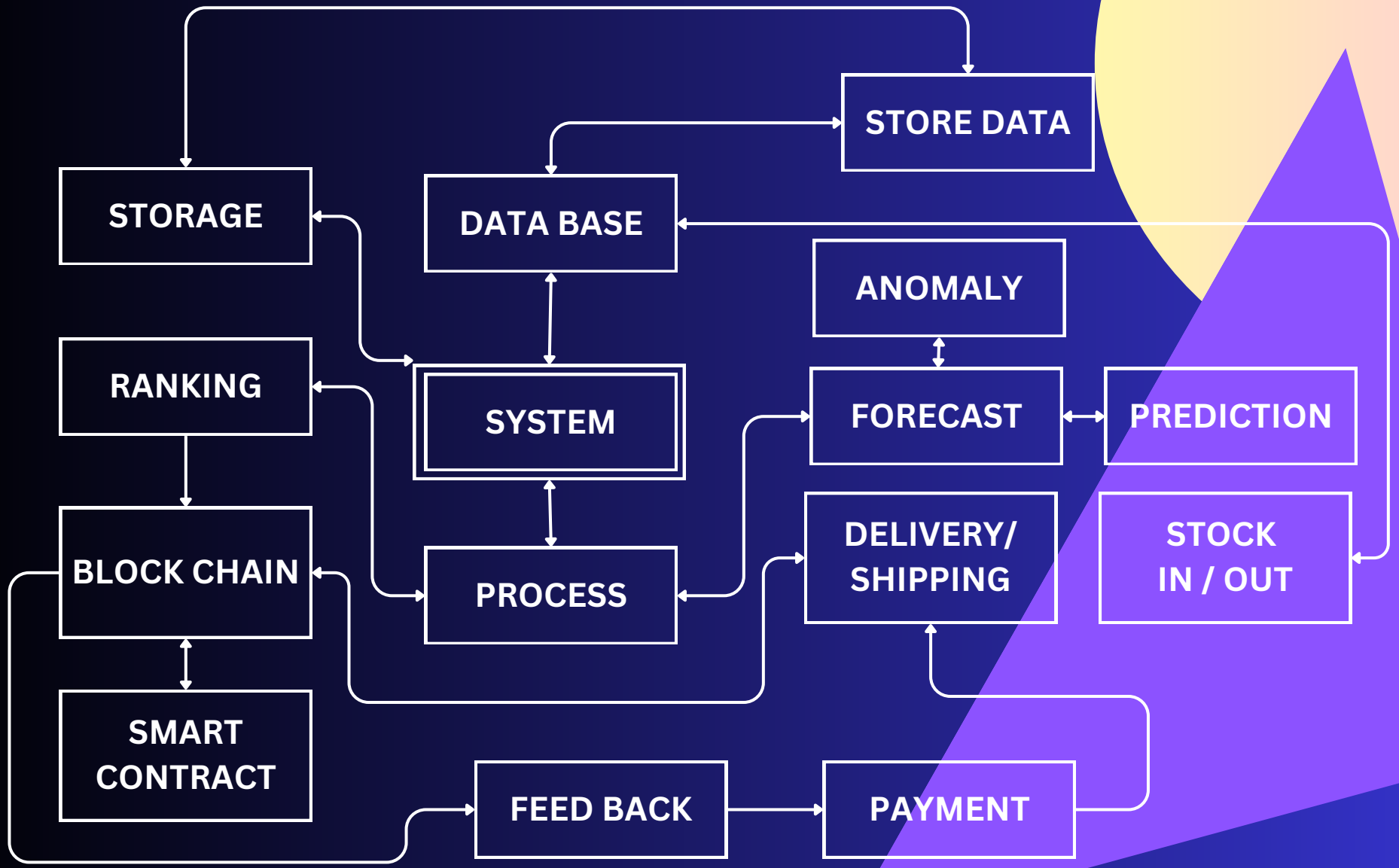
OUR SOLUTION

Managing inventory manually is challenging. Our solution automates this process using AI to predict demand and calculate order quantities, placing orders proactively before the empty of the stocks. Shops are ranked based on sales data and customer sentiment analysis. Blockchain technology tracks the production, shipment, and delivery of items, ensuring security and authenticity while reducing counterfeit products. Personalized wallets enable secure blockchain-based transactions, safeguarding payment and data handling across the supply chain. This comprehensive system enhances efficiency and security of inventory management.

Our approach seems well-suited to address the recent problems related to Supply chain system, as it integrates AI and blockchain technologies to improve the safety, authenticity, and efficiency of the product supply chain.



FLOW CHART


STORE DATA
STORAGE
DATA BASE
ANOMALY
RANKING
SYSTEM
FORECAST
PREDICTION
BLOCK CHAIN
PROCESS
DELIVERY/
SHIPPING
STOCK
IN / OUT
SMART
CONTRACT
FEED BACK
PAYMENT

DATA SETS & RANKING MODEL

DATA COLLECTION

PROCESSING & CLEANING

DEMAND PREDICTION (LSTM)

RANKING SYSTEM

SENTIMENT OF ONE YEAR SALE

ANN MODEL USING PYTORCH THAT GENERALLY GIVES RANKING I.E. HOW WELL THE STORE HAD PERFORMED BASED ON THAT DATA

PREDICTION AND CALCULATION OF THE AMOUNT IN ORDER AND DEMAND

KEY FEATURES

Feature	LogChain	Existing Market Solutions
Blockchain Integration	Ethereum + Infura + MetaMask for secure, transparent, and immutable records.	Limited or no blockchain integration, less transparency.
AI-Driven Inventory	Advanced LSTM models for precise demand forecasting and automated reordering.	Basic inventory management with manual processes.
End-to-End Traceability	Comprehensive tracking from production to delivery with real-time updates.	Partial tracking, often limited to certain stages.
Store Ranking System	AI-based ranking of stores based on sales and reviews for optimized allocation.	Typically lacks sophisticated ranking mechanisms.
Expiry Management	Prioritizes near-expiry products to reduce waste and ensure safety.	Often does not prioritize based on expiry dates.
Quick Emergency Orders	Allows shops to place urgent orders, prioritized by performance.	Limited or no support for emergency orders.
User Interface	Intuitive, user-friendly web platform with real-time notifications.	May be complex and less intuitive with fewer alerts.
Regulatory Compliance	Designed to meet industry standards and pharmacutical regulations.	Varies, with some not fully compliant with regulations.

TECHNICAL APPROACH

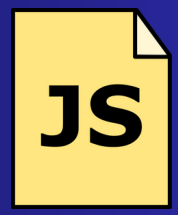
- Model: LSTM for accurate demand forecasting.
  Implementation: Developed using PyTorch.
- AI-Based Ranking System:
  Framework: PyTorch for evaluating shop performance based on sales and customer sentiment.
- Website Development:
  Stack: MERN (MongoDB, Express.js, React, Node.js) for a user-friendly interface.
- Blockchain Integration:
  Cryptography: Secure transactions and data.
  Tracking: Transparent production, shipment, and delivery.
- API and Integration:
  FastAPI: Connects AI models, blockchain, and website.
- Security & Compliance:
  Encryption: Protects data both on-chain and off-chain.
  Regulatory Adherence: Meets pharmaceutical industry standards.
- This approach integrates advanced AI, blockchain, and web technologies to enhance pharmaceutical inventory management, ensuring safety, efficiency, and security.

TECH STACK

Blockchain

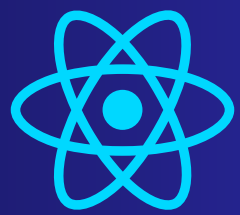


Web Dev

AI & ML






THANK YOU