



Dr. Vishwanath Karad

**MIT WORLD PEACE
UNIVERSITY** | PUNE

TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

SHOPPIYO

A SECURE & SCALABLE DROPSHIPPING PLATFORM



DONE BY :

1. Abhas Jaltare - 1032221128
2. Om Durdhi - 1032221115
3. Nishit Shah - 1032221549
4. Dhruv Pandey - 1032211613



Domain **Full-Stack**
Development



Tech Stack **MERN**



INTERNAL GUIDE :
Dr. Reshma Sonar

PROBLEM STATEMENT :



Problem 1

Small businesses need reliable platforms



Problem 2

Manual processes lead to errors and delays.



Problem 3

Secure payment integration poses challenges



Problem 4

Need for responsive user interfaces

Existing solutions are often too expensive

Product management can be time-consuming

Security issues can deter customers

Users expect smooth mobile experiences.

Difficult management leads to inefficiencies

Order tracking often lacks real-time updates

Developers face integration difficulties

UI must cater to diverse customer needs

01

User Access

Enable seamless login and registration for users and admins.

02

Product Management

Facilitate efficient product listing, updates, and categorization.

03

Secure Payments

Integrate Razorpay for safe and reliable transaction processing.

04

Order Tracking

Provide users with real-time tracking of their order status.

05

Scalability

Ensure the platform can handle increased user and product load.

Objectives of SHOPPIYO

Comprehensive Project Portfolio Analysis				
Sr No	Publication Title & Authors	Year	Positive Points	Gaps
1	MERN Stack & Component-Based UI [Conf/Thesis]	2022	Efficient SPA with React, reusable components, MongoDB-Express synergy	Lacks SEO, SSR, real-time security, AI integration
2	Real-Time E-commerce Fraud Detection using ML [Journal]	2023	Robust ML models for transactional risk scoring	Slow adaptation to zero-day fraud, integration with lightweight Node.js challenging
3	Scalable Dropshipping Logistics & Inventory Sync [Whitepaper]	2024	Real-time API sync, webhooks for stock & tracking	Ignores payment-side fraud, security layer missing
4	Performance Analysis of JS Build Tools (Vite) [Conf Paper]	2023	Faster HMR, cold start; simplified dependencies	Ignores production bundle metrics, server-side API integration
5	YOLO-Based Real-time Object Detection [Journal]	2024	CV for fraud, real-time inference	High GPU demand, lacks transactional data integration

REQUIREMENT GATHERING



FUNCTIONAL

- User Login & Cart
- Razorpay Integration
- Admin CRUD Ops
- Order Tracking



NON-FUNCTIONAL

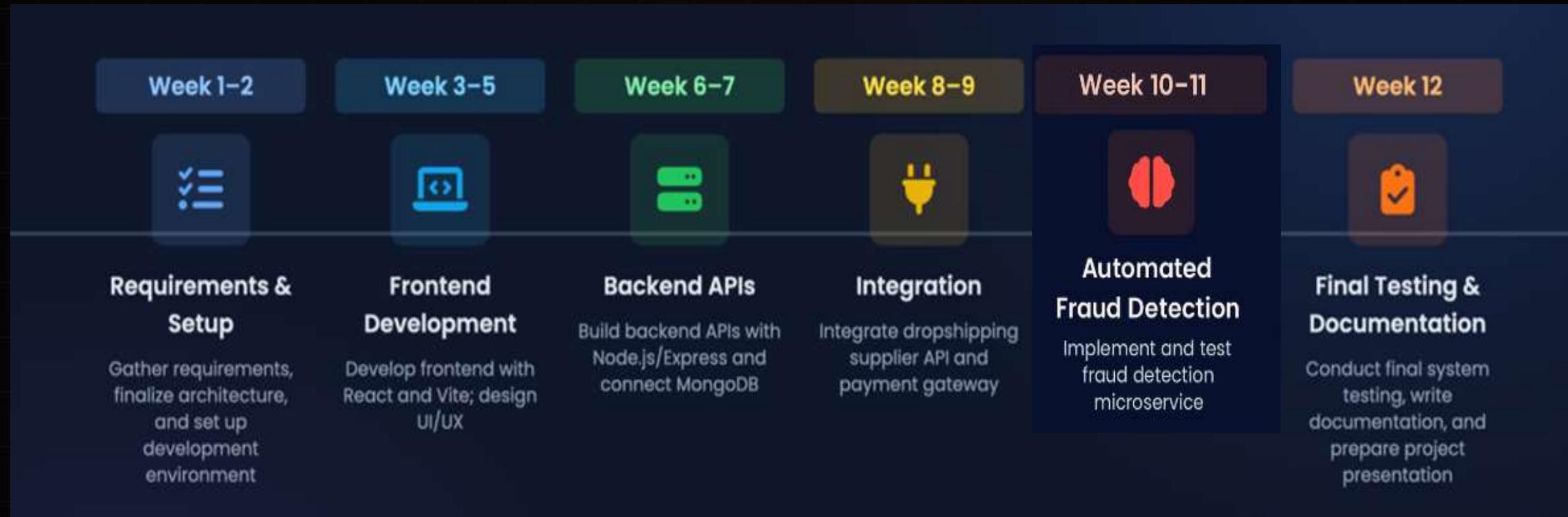
- High Security
- Scalability
- Responsive UI
- High Availability



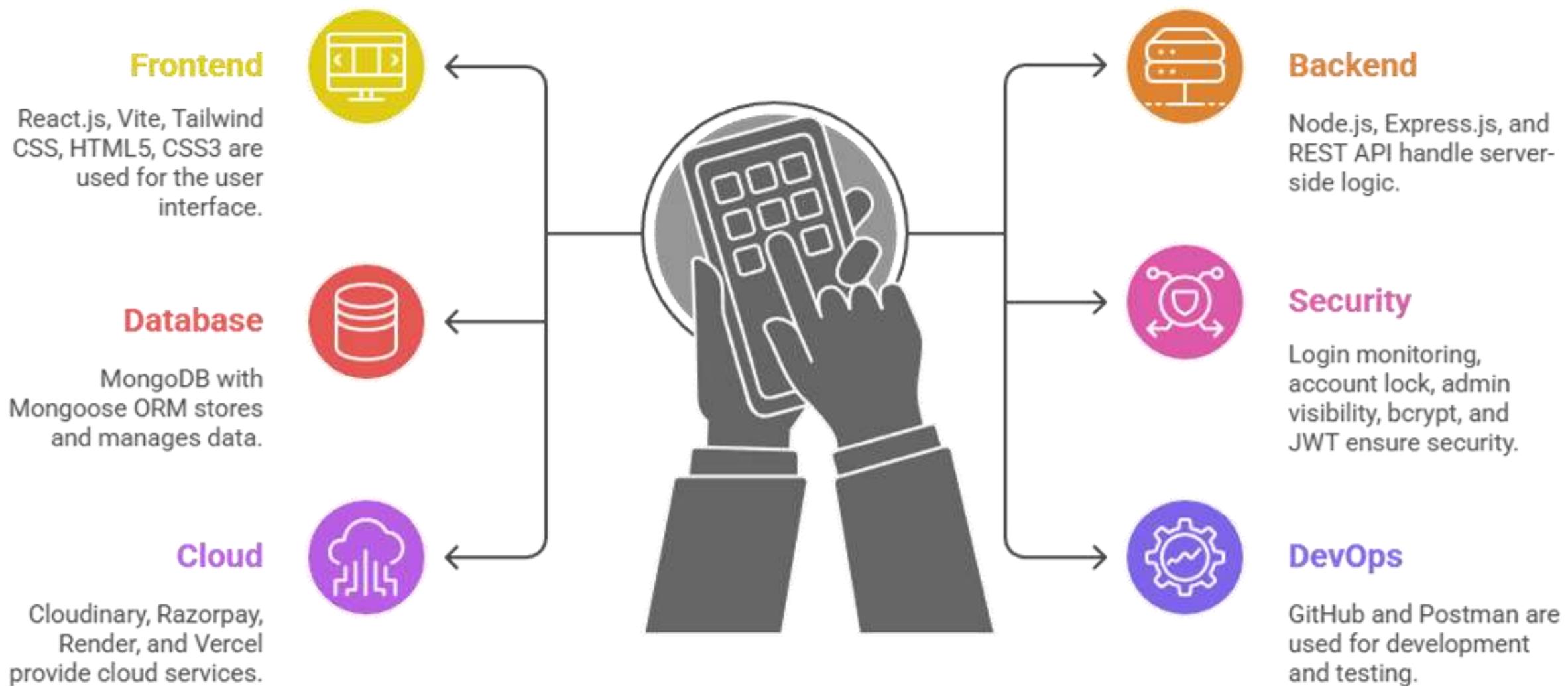
TECHNICAL SPECS

React • Node • Express
MongoDB Atlas •
Render
Cloudinary • Razorpay

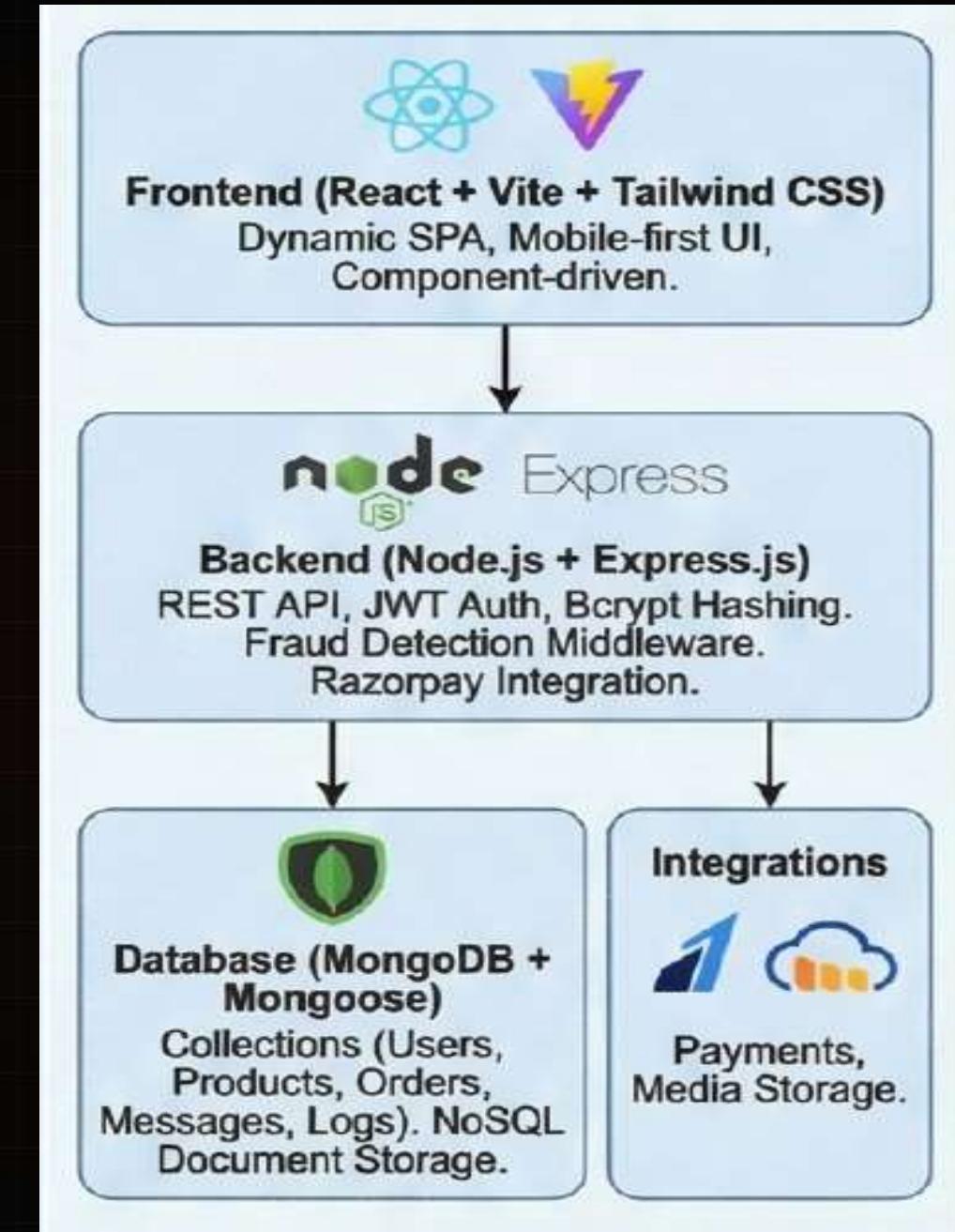
DEVELOPMENT TIMELINE



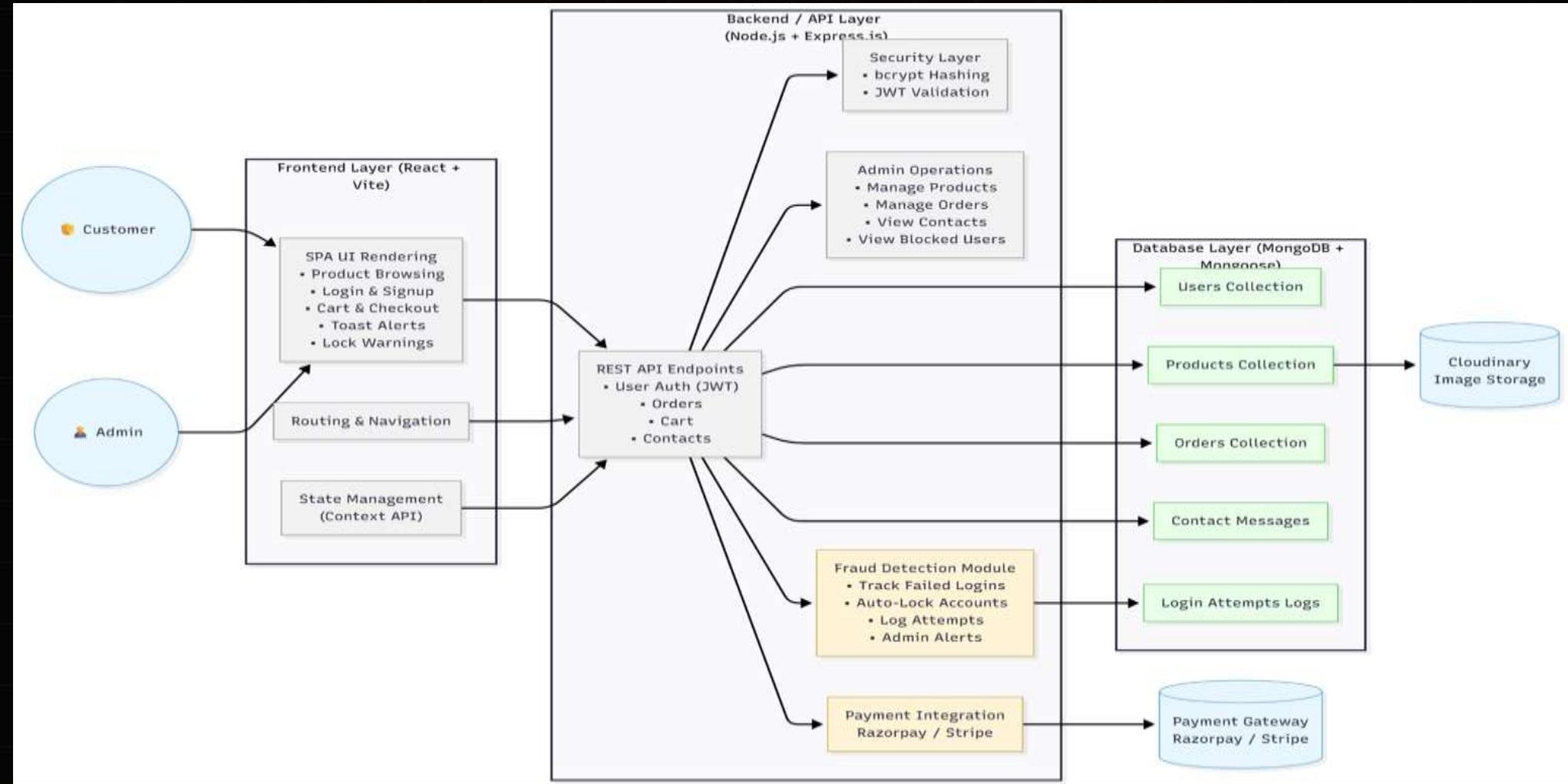
TECHNOLOGY STACK



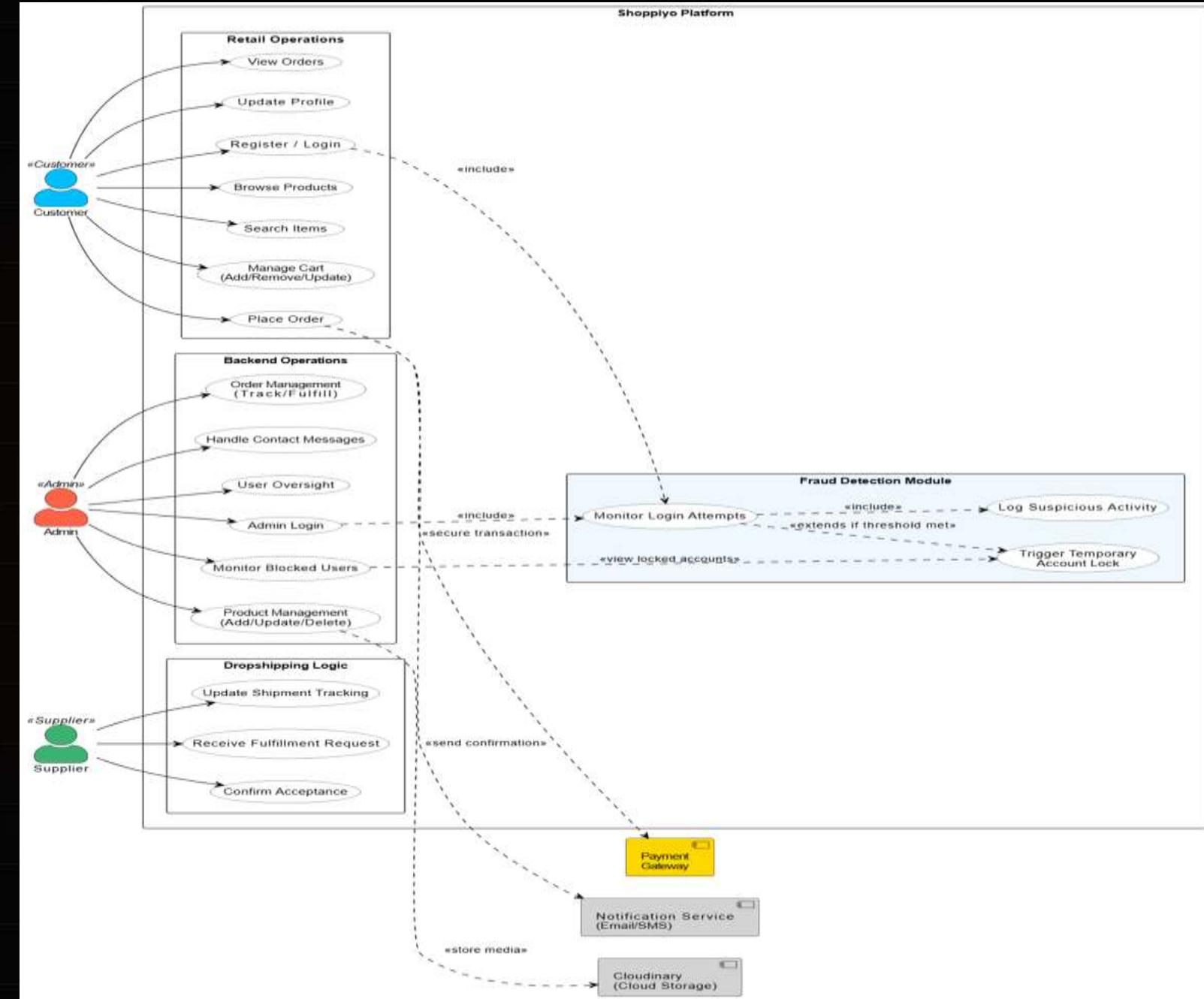
SYSTEM DESIGN (LOW LEVEL)



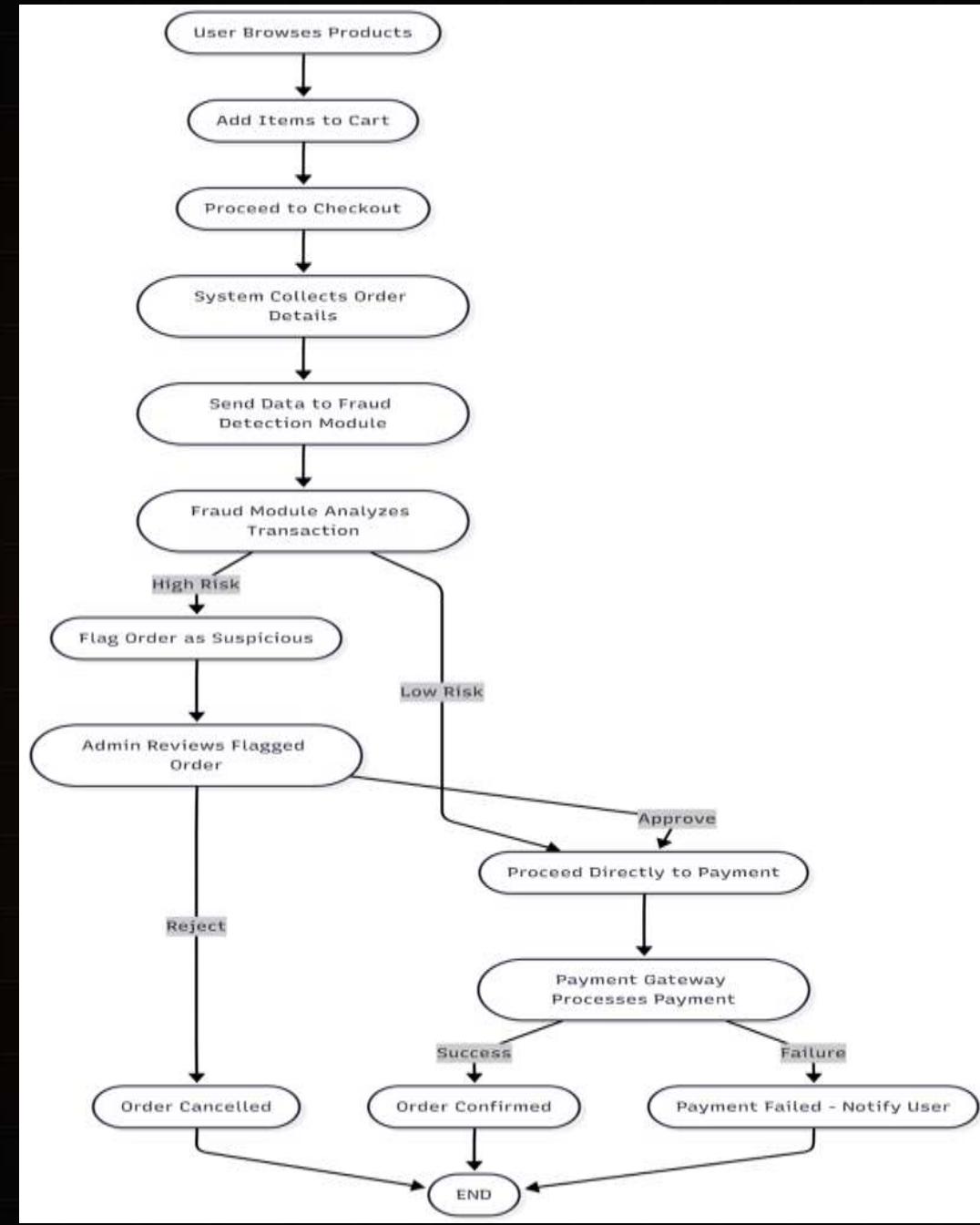
SYSTEM ARCHITECTURE (HIGH LEVEL)



USE CASE DIAGRAM



ACTIVITY DIAGRAM



Individual Contributions

Dhruv Pandey
1032211613



Documentation, Testing & Security Module, created project documentation and performed rigorous testing. Designed fraud detection mechanism.

Nishit Shah
1032221549

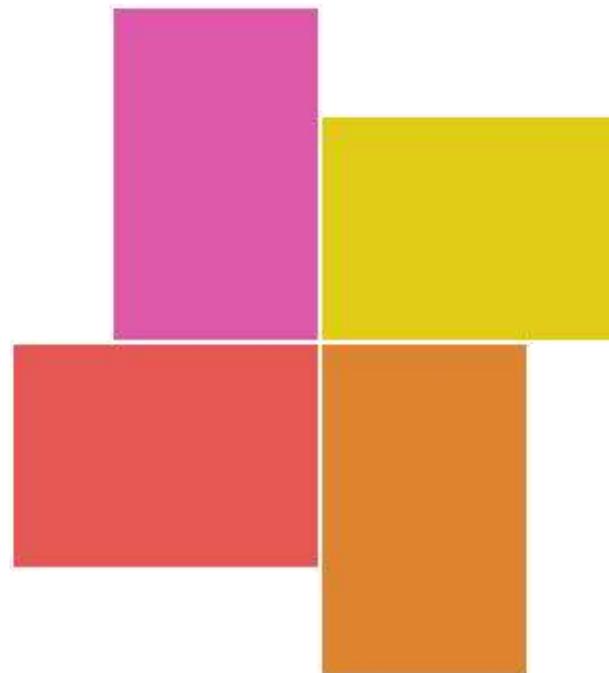


Backend Architecture & API Development, developed backend architecture using Node.js and Express. Implemented secure REST APIs and database schemas.



Abhas Jaltare
1032221128

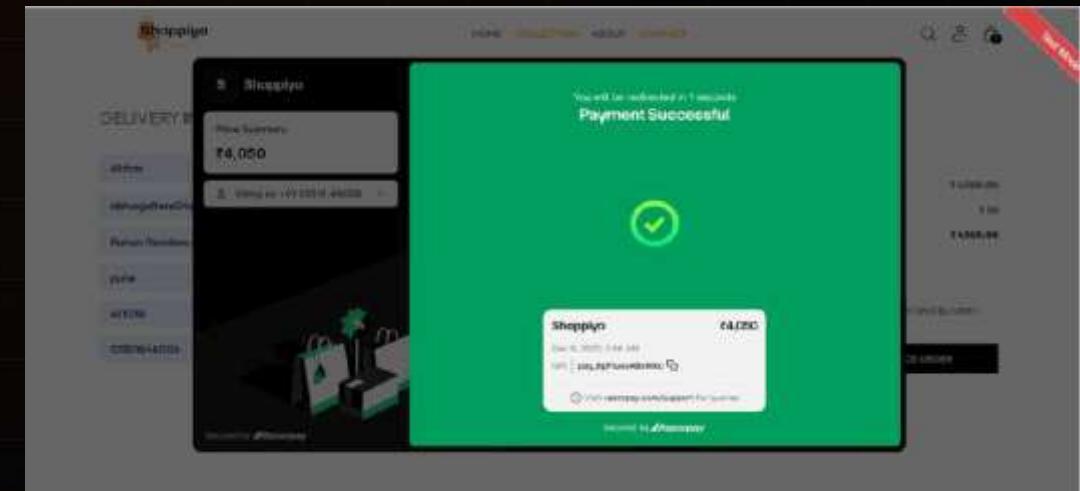
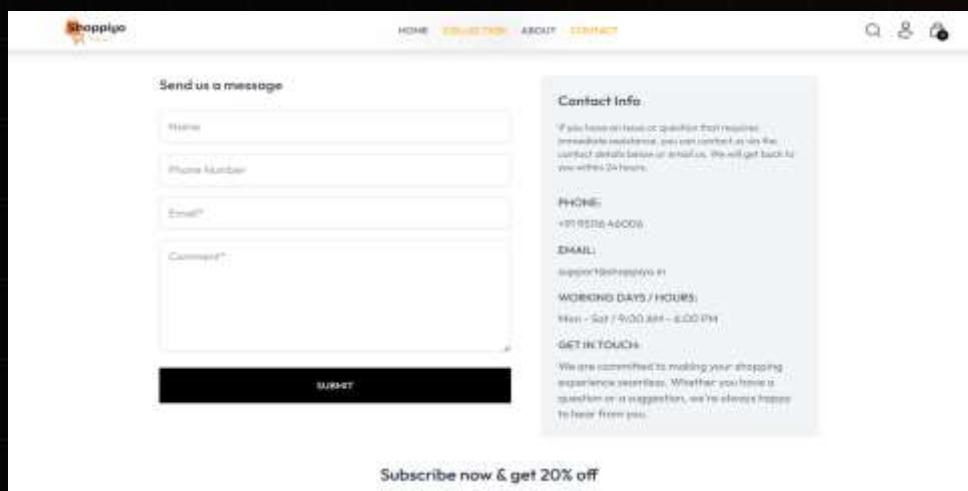
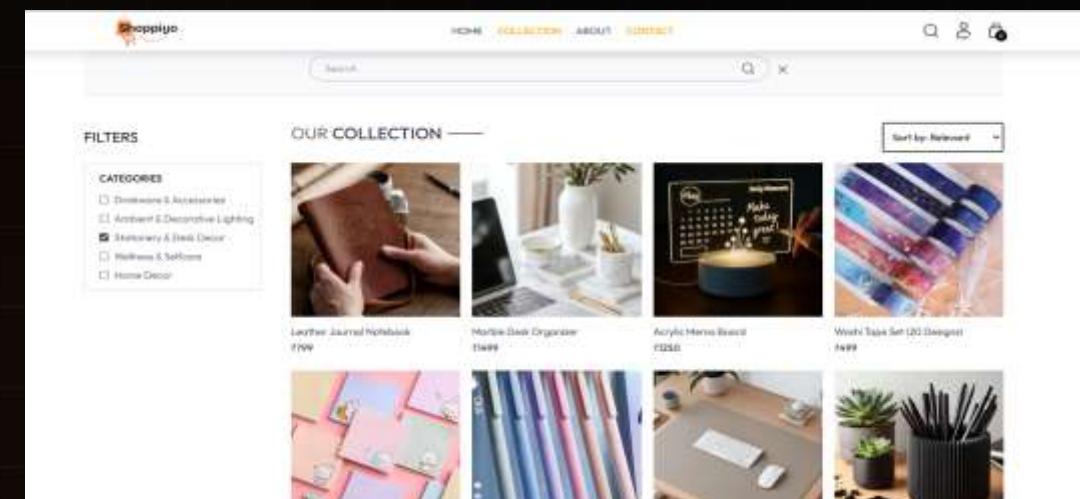
Project Lead & Full-Stack Integration, coordinated team workflow and aligned system architecture. Designed React-based frontend and integrated modules.



Om Durdi
1032221115

UI/UX & Product Management, curated product data and enhanced website's user interface. Refined layout and usability improvements.

RESULTS & ANALYSIS (FRONT END)



(ADMIN PANEL)

Shoppio Admin Panel

Logout

Add Items

Upload Image

Category: Electronics & Accessories

Product Name: Type here

Product Description: Write product name

Product Category: Electronics & Accessories

Product Price: 200

Add to bestseller

ADD

This screen shows the interface for adding new products. It includes fields for uploading an image, entering the product name and description, selecting a category, setting a price, and marking it as a bestseller. A prominent 'ADD' button at the bottom right initiates the submission process.

Shoppio Admin Panel

Logout

All Products List

IMAGE	NAME	CATEGORY	PRICE	ACTION
	Mineralist Ceramic Incense Holder	Wellness & Selfcare	1999	X
	Bamboo Bath Trays	Wellness & Selfcare	1299	X
	Body Oil Brush (Stainless)	Wellness & Selfcare	799	X
	Reusable Gel Eye Patches	Wellness & Selfcare	1499	X
	Silk Sleep Eye Mask	Wellness & Selfcare	1099	X

This screen displays a list of all products currently available on the platform. Each item is represented by a thumbnail image, its name, category, price, and a delete icon (X). The table has a header row and five data rows corresponding to the products shown in the image.

Shoppio Admin Panel

Logout

Orders

Message of welcome: Order successfully placed. Thank you for your business.

Rishabh

Order ID: 1234567890 | Method: COD | Payment Pending

Items:

Category Projector Lamp + 2 (One Each)

Address:

Infotel
Pune, Maharashtra, India - 411038
Phone: 1234567890

Abhishek Jethore

Order ID: 1234567890 | Method: COD | Payment Pending

Items:

Possibly Gel Eye Patches x 1 (One Each)

Address:

Infotel
Pune, Maharashtra, India - 411038
Phone: 1234567890

This screen shows the 'Orders' section of the admin panel. It lists two recent orders. Each order entry includes the order ID, payment method (COD), payment status (Pending), items purchased, and delivery address. The interface is clean with a white background and black text.

Shoppio Admin Panel

Logout

Contact Messages

View contact messages sent from my customer page.

Abhishek Jethore

Email: abhishek.jethore@gmail.com | Phone: 1234567890

TEST MESSAGE 2:

This is a test message to check whether the admin panel reflects the contact messages...

Abhishek Jethore

Email: abhishek.jethore@gmail.com | Phone: 1234567890

TEST MESSAGE 1:

This screen shows the 'Contact Messages' section of the admin panel. It lists two messages received from a customer named Abhishek Jethore. Each message entry includes the sender's name, email, phone number, and the content of the message. There are also 'Delete' and 'Reply' buttons for each message.

DEPLOYMENT MODULE



Backend: Deployed as a Web Service on Render.



Frontend: Hosted as a Static Site on Render.



Database: MongoDB Atlas Cluster (Cloud).



Media: Cloudinary for optimized image delivery.



Frontend Hosting

Utilize Render Static Sites for frontend deployment.



Backend Services

Deploy backend as a Render Web Service for scalability.



Database Management

Use MongoDB Atlas for efficient database services.



Media Storage

Employ Cloudinary for optimized image and video storage.

SECURITY ASPECTS



AUTH & DATA

Bcrypt password hashing and JWT-based session management.



TRANSACTIONS

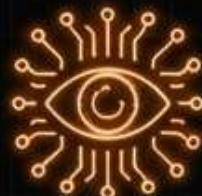
Razorpay secure signature verification for every payment.



NETWORK

Strict CORS policies and Env variable protection.

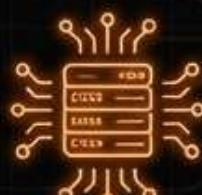
FRAUD DETECTION MODULE



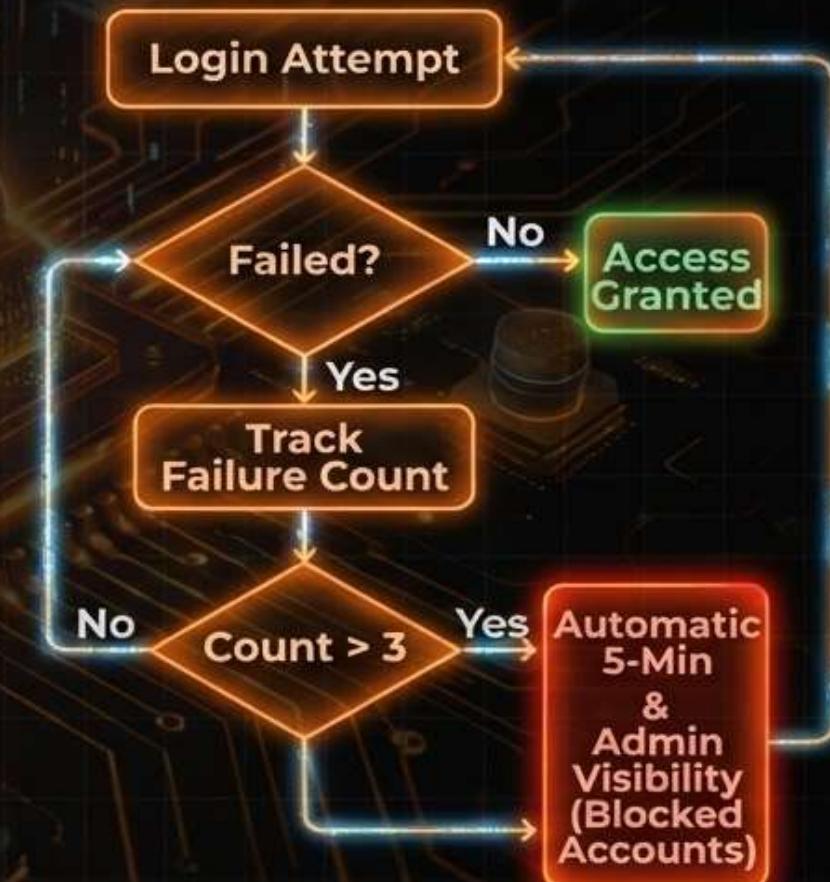
The system monitors user login attempts in real time.



Multiple consecutive failed logins trigger a temporary account lock.



All suspicious activities are logged and displayed in the Admin Panel for monitoring.



Strategies for Project Maintenance and Updates

Monitor

Regularly check logs for errors and performance issues.

Backups

Implement automated daily backups for user data and configurations.

Updates

Schedule routine updates for libraries and dependencies for security.

Testing

Conduct periodic tests for all critical functionalities and features.

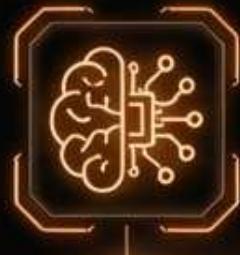
Documentation

Keep documentation current with each new update or feature release.

Feedback

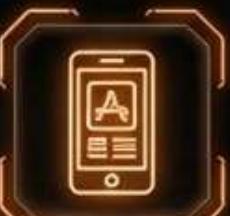
Collect user feedback regularly to identify areas for improvement.

FUTURE ROADMAP



AI Recommendations

ML-based product suggestions.



Mobile App

React Native version.



Logistics

Delivery partner integration.



Marketing

Discount engine & email triggers.



REFERENCES



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MERN Stack E-Commerce Implementation

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THANK YOU

WEB URL - <https://shoppiyo-full-stack-frontend.onrender.com>

