INFINITY BANK PROJECT

A SECURE AND SCALABLE BANKING SYSTEM

PROJECT OVERVIEW

The primary goals of this project include:

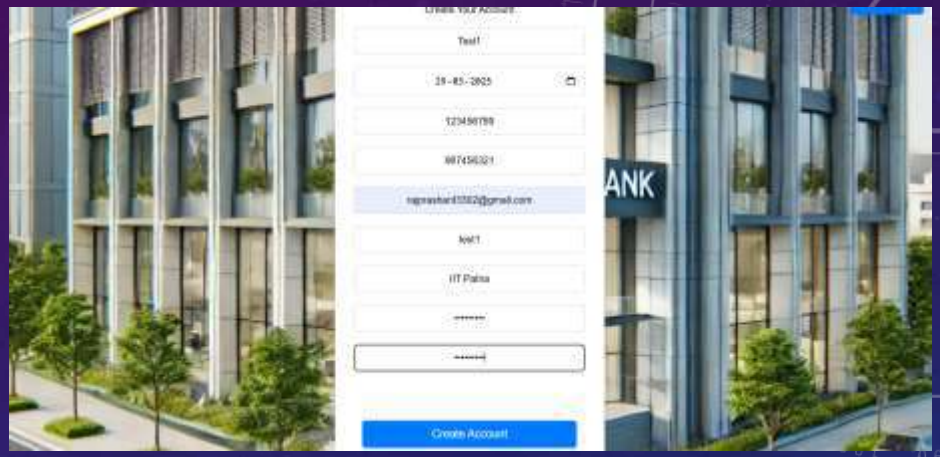
1. Providing a simple and efficient interface for managing bank accounts.
2. Implementing a secure authentication system.
3. Storing user data and transactions efficiently using JSON files.
4. Enabling administrators to create, modify, and delete user accounts.
5. Allowing users to check their balance, update personal details, and review transaction history.

FEATURES

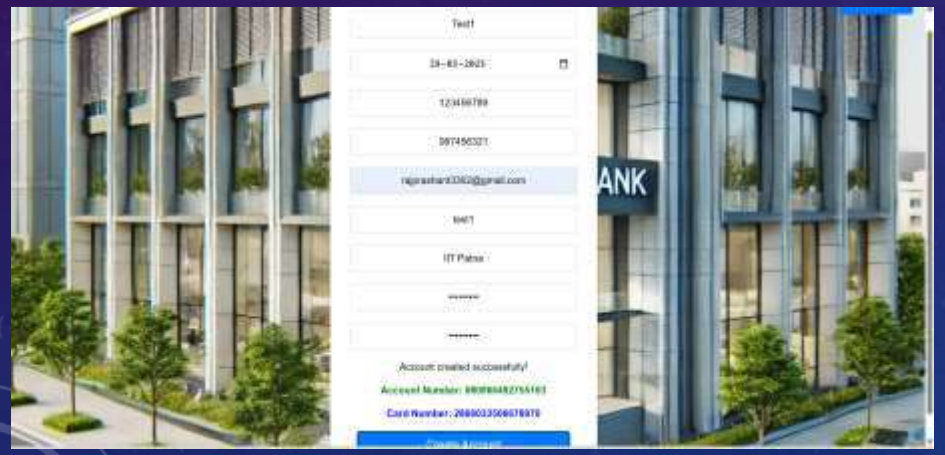
- Creating Account
- Login
- Money Transfer with OTP validation
- Loan EMI payment
- Pay Bill
- Mobile/DTH recharge
- Check Balance
- Show Transaction
- Withdraw Money
- Check Card Details
- Show Account Number

CREATING ACCOUNT

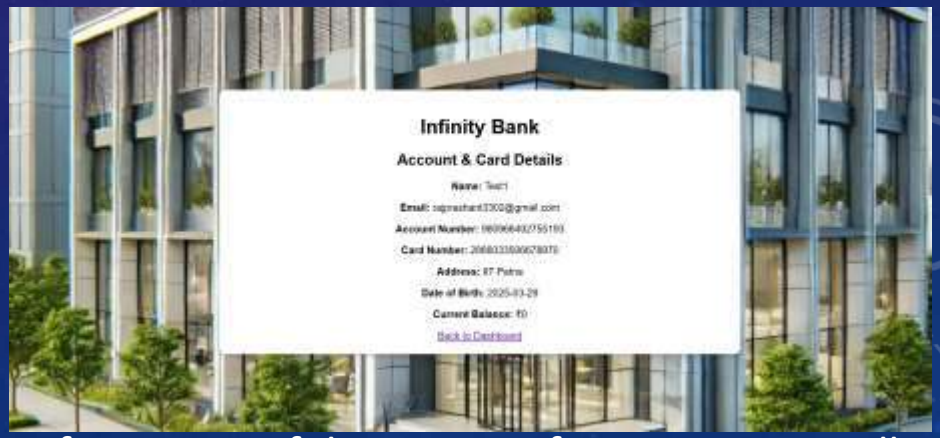
Click on Create Account



Fill all details and click on create (username is ensured to be unique)

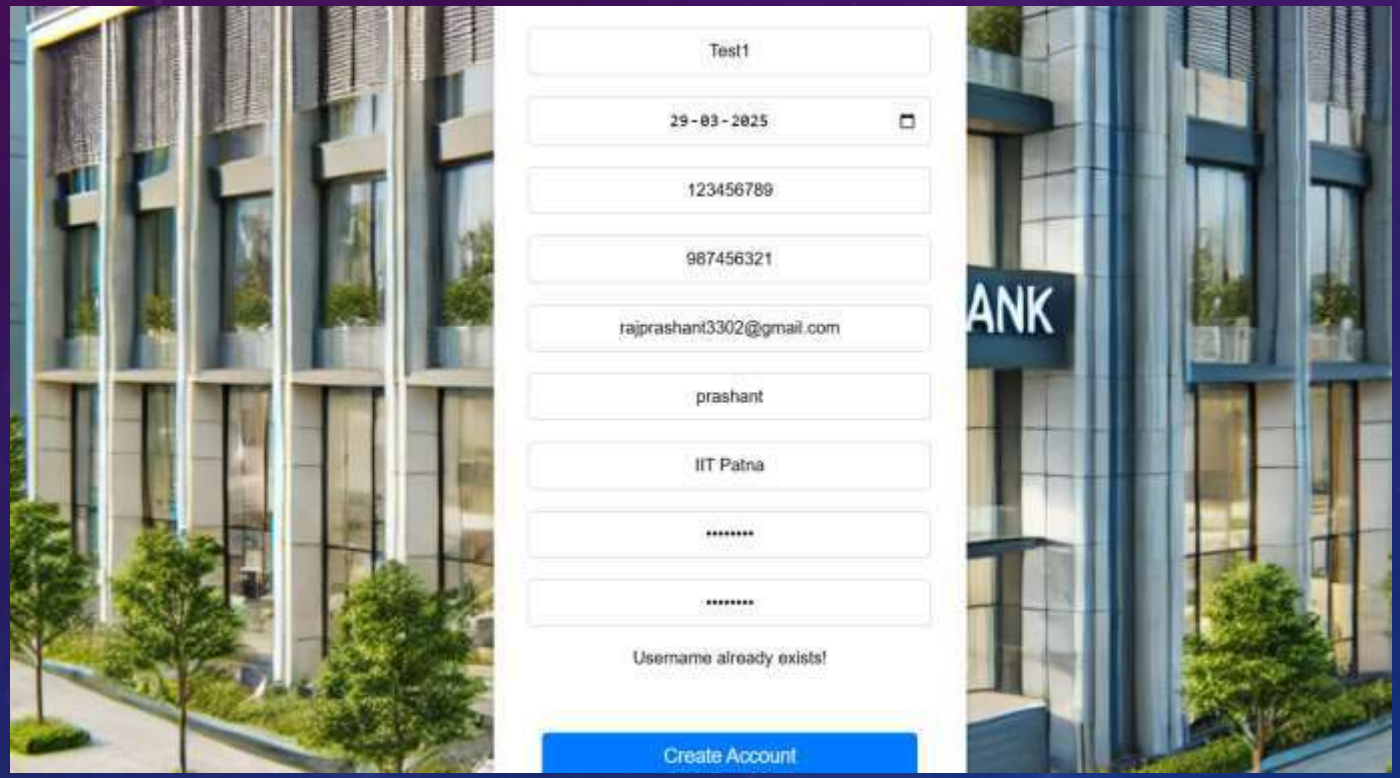


Account Number and Card Number is automoatically generated and is Unique



After Successful creation of account, you will be directed to this page automatically after 10s.

WHAT IF USERNAME IS NOT UNIQUE?



It will show an error . It also ensures password is of length 8.

LOGIN PAGE

Enter you username and password . If username is not in database . It shows error and direct to account creation page automatically.

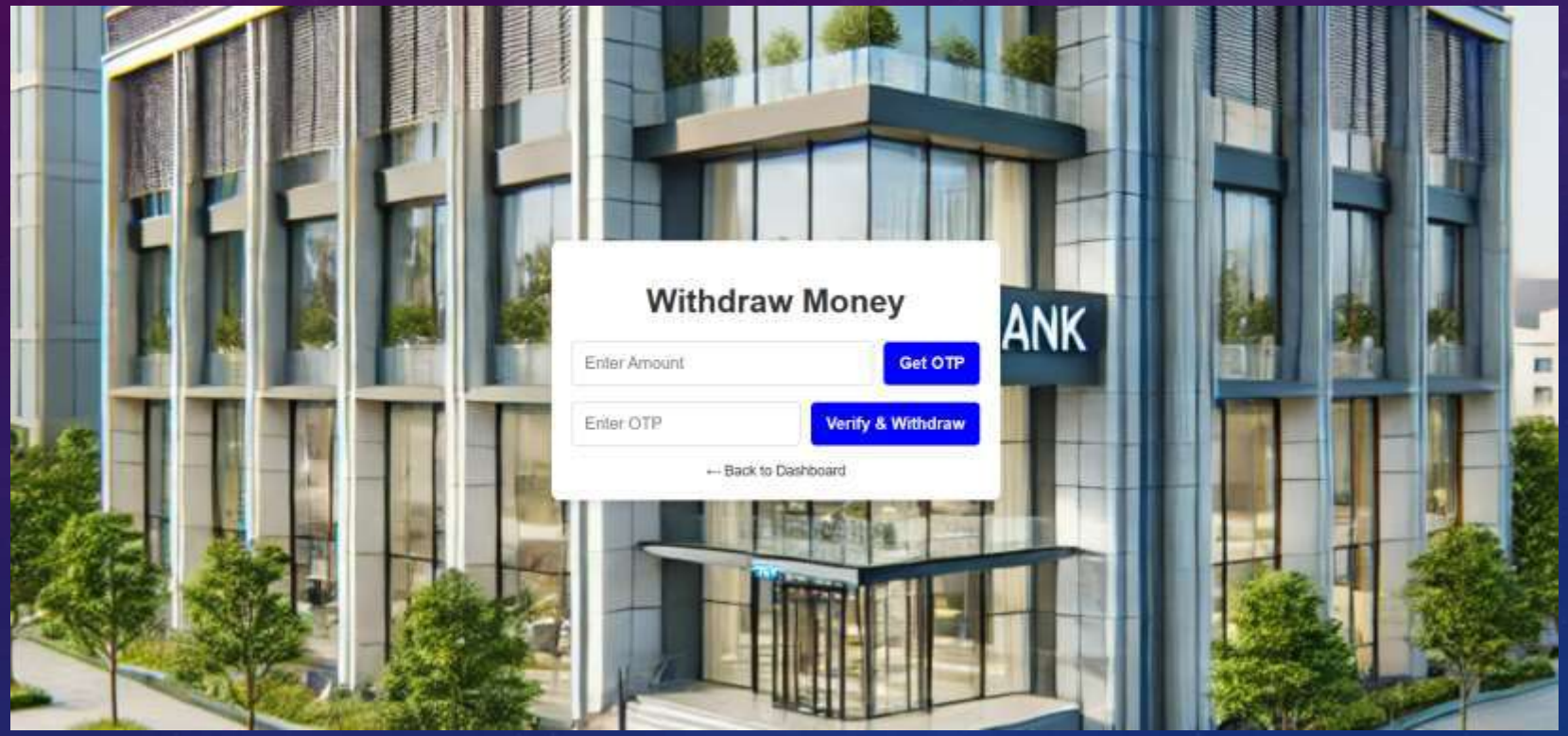
If it is correct ,then……

It welcomes user by his name and …..

You will be directed to this page (Dashboard)

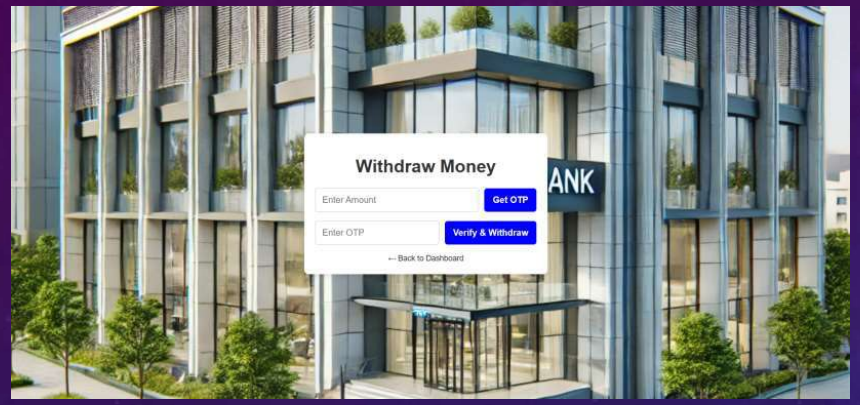
DEPOSIT MONEY

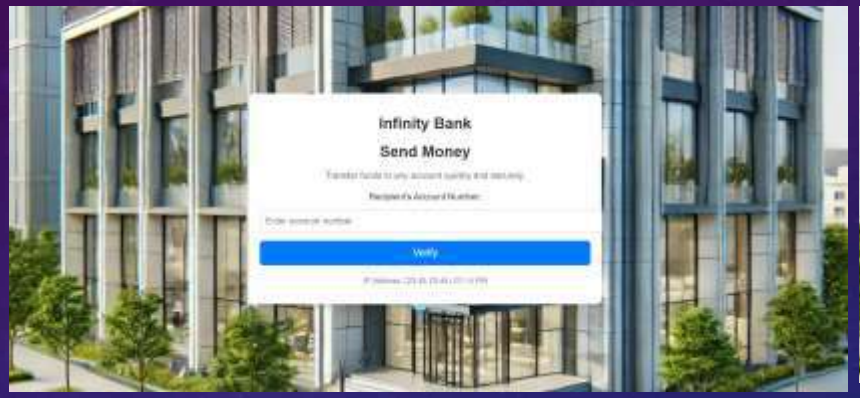
WITHDRAW MONEY



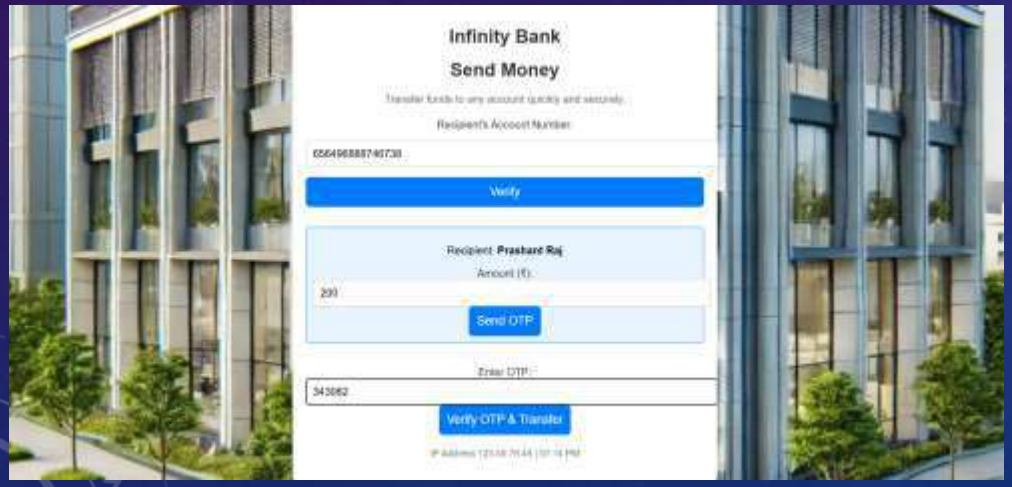
Function in Similar Manner as Deposit Money

SEND MONEY


Withdraw Money
Enter Amount
Get OTP
Enter OTP
Verify & Withdraw
← Back to Dashboard


Infinity Bank
Send Money
Verify

Infinity Bank
Send Money
Verify
Send OTP


Infinity Bank
Send Money
Transfer funds to any account quickly and securely.
Recipient's Account Number
Verify
Recipient: Prashant Raj
Amount (₹):
200
Send OTP
Enter OTP:
Verify OTP & Transfer

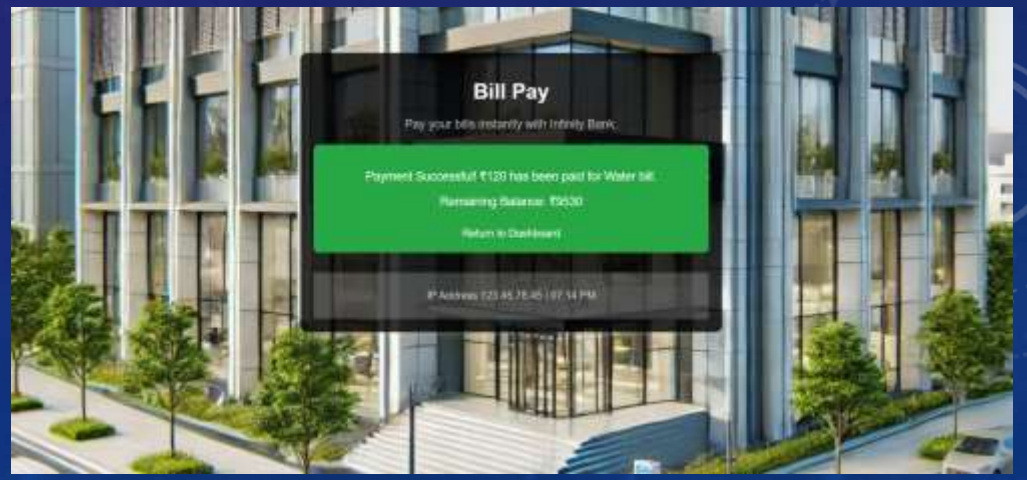
Infinity Bank
Send Money
Transfer funds to any account quickly and securely.
Transaction Successful! ₹200 has been sent to Prashant Raj
Go back to Dashboard

PAY BILLS

Bill Pay
Pay your bills instantly with Infinity Bank.
Select Bill Type:
-- Select --
Bill Number:
Enter bill number
Amount (₹):
Enter amount
Get OTP

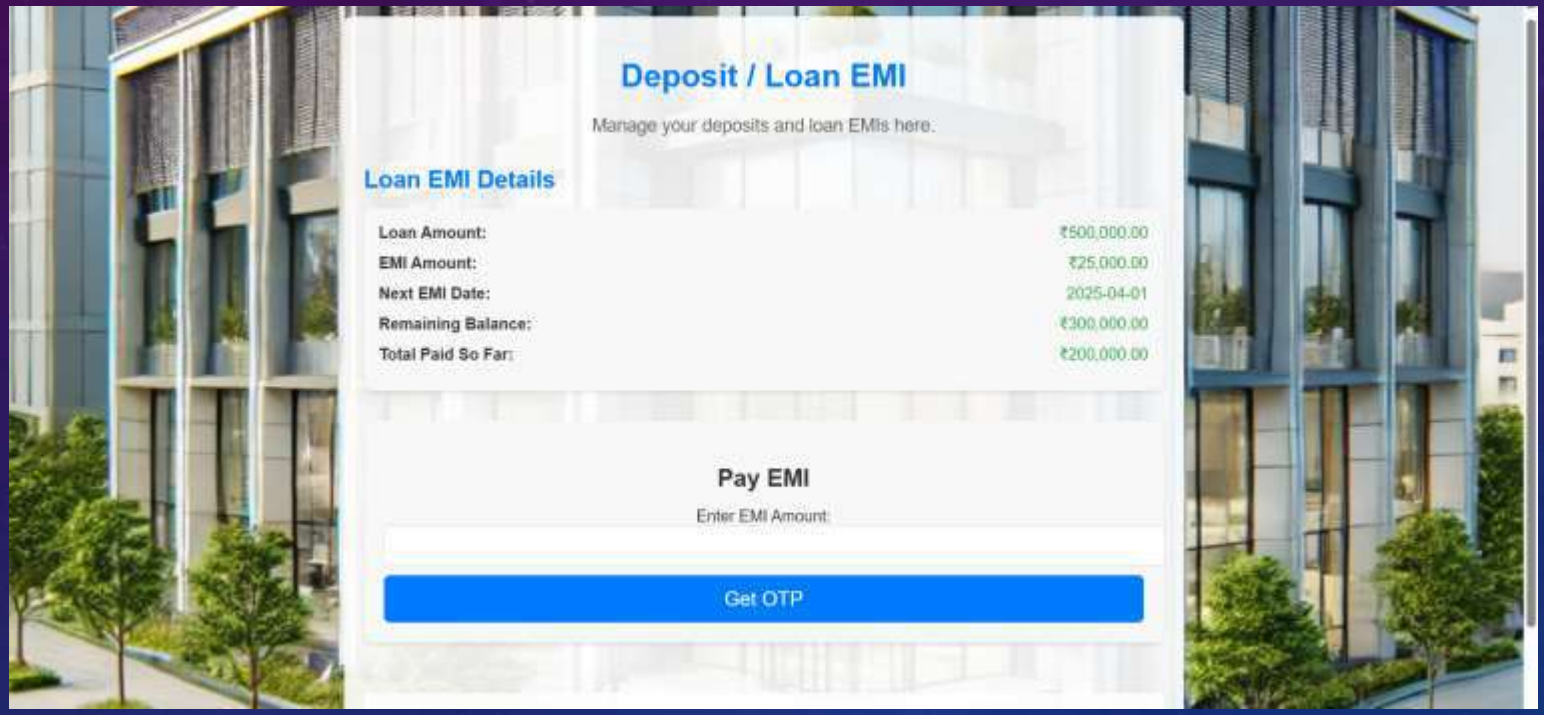
Bill Pay
Pay your bills instantly with Infinity Bank.
Select Bill Type:
-- Select --
-- Select --
Electricity
Water
Internet
Gas
Enter amount
Get OTP

Bill Pay
Pay your bills instantly with Infinity Bank.
Select Bill Type:
Water
Bill Number:
123
Amount (₹):
120
Get OTP
Enter OTP:
Pay Bill


Bill Pay
Pay your bills instantly with Infinity Bank.
Payment Successful! ₹120 has been paid for Water bill.
Remaining Balance: ₹9530
Return to Dashboard

MOBILE/DTH RECHARGE

PAY EMI

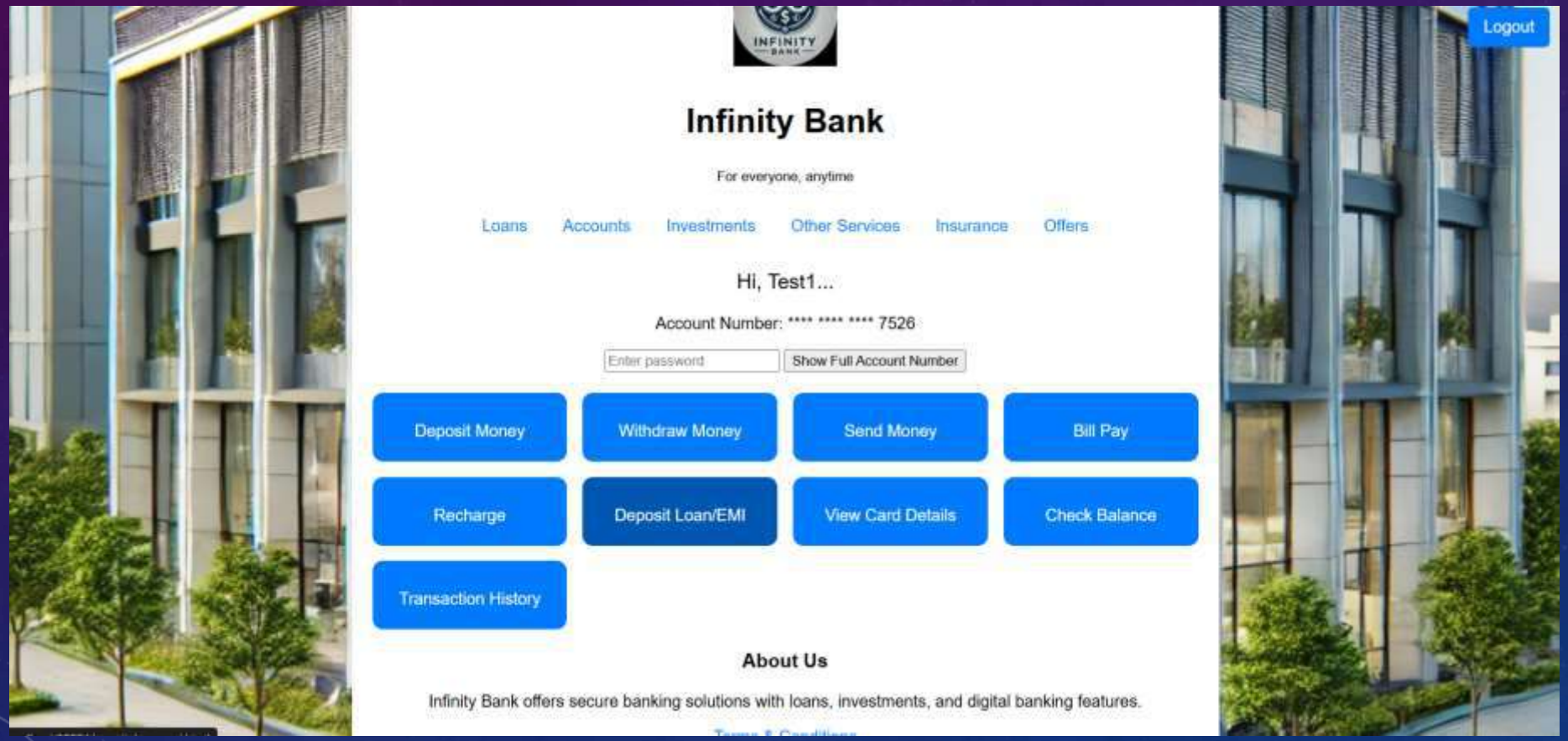

Deposit / Loan EMI
Manage your deposits and loan EMIs here.
Loan EMI Details
Loan Amount: ₹500,000.00
EMI Amount: ₹25,000.00
Next EMI Date: 2025-04-01
Remaining Balance: ₹300,000.00
Total Paid So Far: ₹200,000.00
Pay EMI
Enter EMI Amount:
Get OTP

VIEW CARD DETAILS

VIEW BALANCE

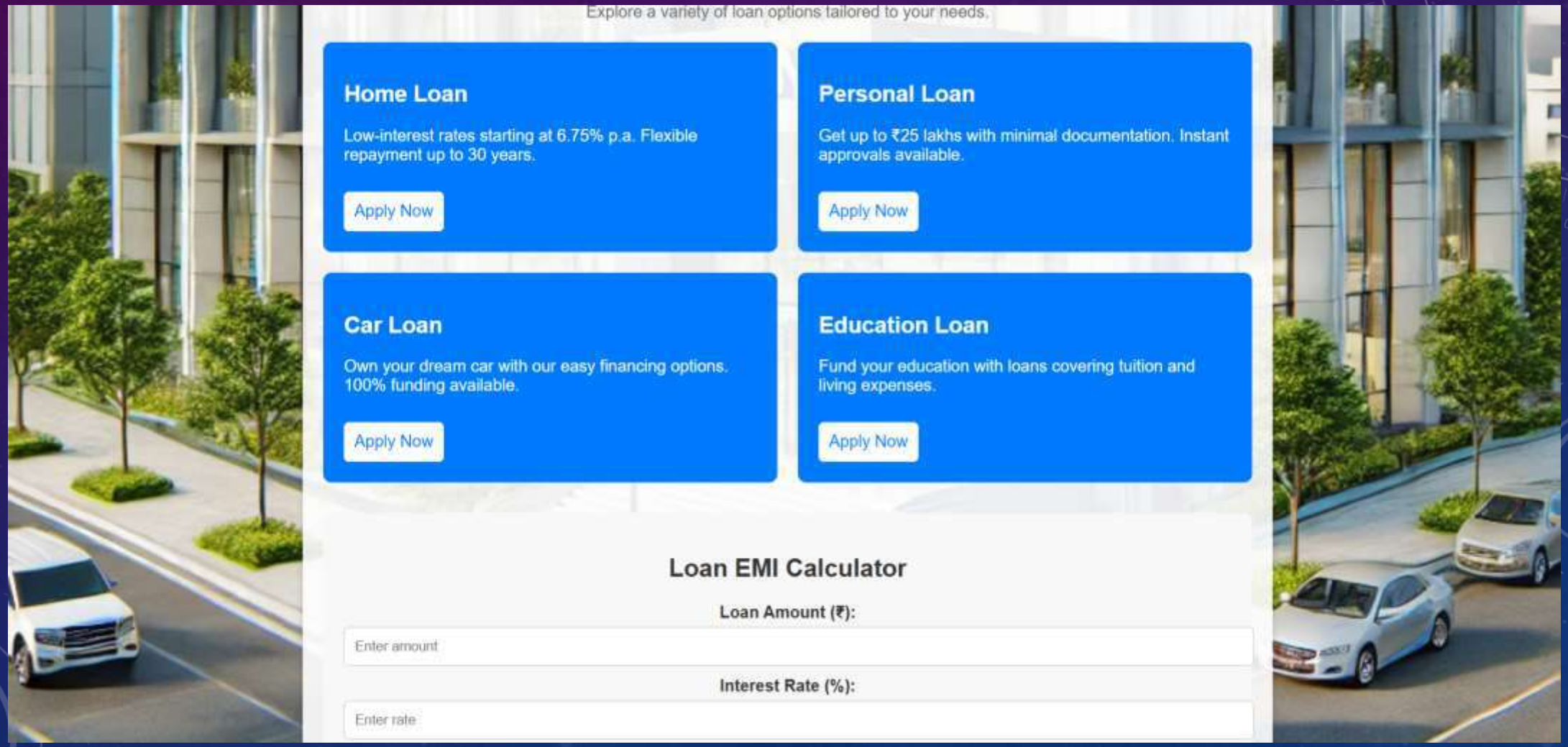
SHOW TRANSACTION HISTORY

DO YOU THINK THESE NAV BAR WORKS?

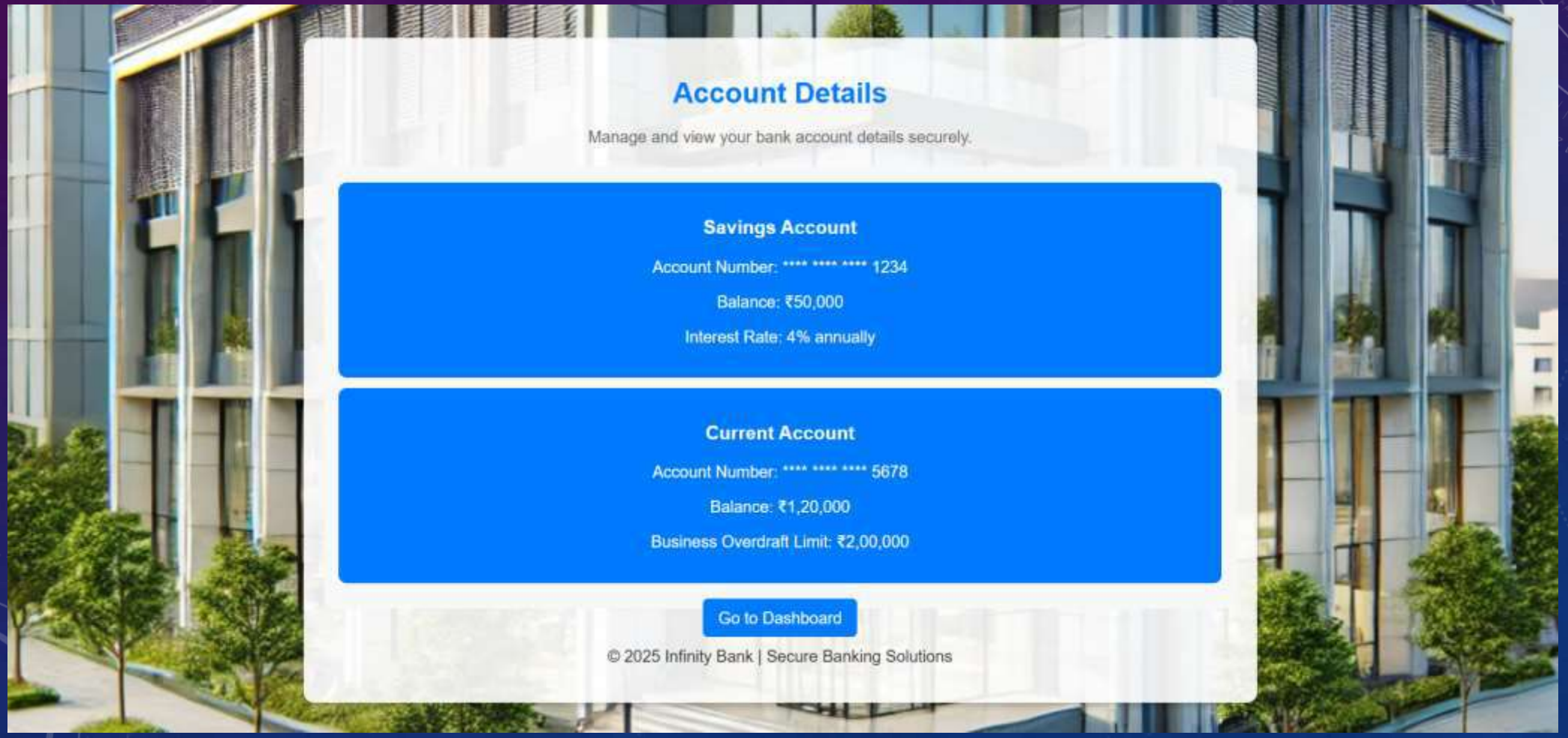


YES/NO

NAV-LOANS


Explore a variety of loan options tailored to your needs.
Home Loan
Low-interest rates starting at 6.75% p.a. Flexible repayment up to 30 years.
Apply Now
Personal Loan
Get up to ₹25 lakhs with minimal documentation. Instant approvals available.
Apply Now
Car Loan
Own your dream car with our easy financing options. 100% funding available.
Apply Now
Education Loan
Fund your education with loans covering tuition and living expenses.
Apply Now
Loan EMI Calculator
Loan Amount (₹):
Enter amount
Interest Rate (%):
Enter rate

NAV-ACCOUNT


Account Details
Manage and view your bank account details securely.
Savings Account
Account Number: **** **** **** 1234
Balance: ₹50,000
Interest Rate: 4% annually
Current Account
Account Number: **** **** **** 5678
Balance: ₹1,20,000
Business Overdraft Limit: ₹2,00,000
Go to Dashboard
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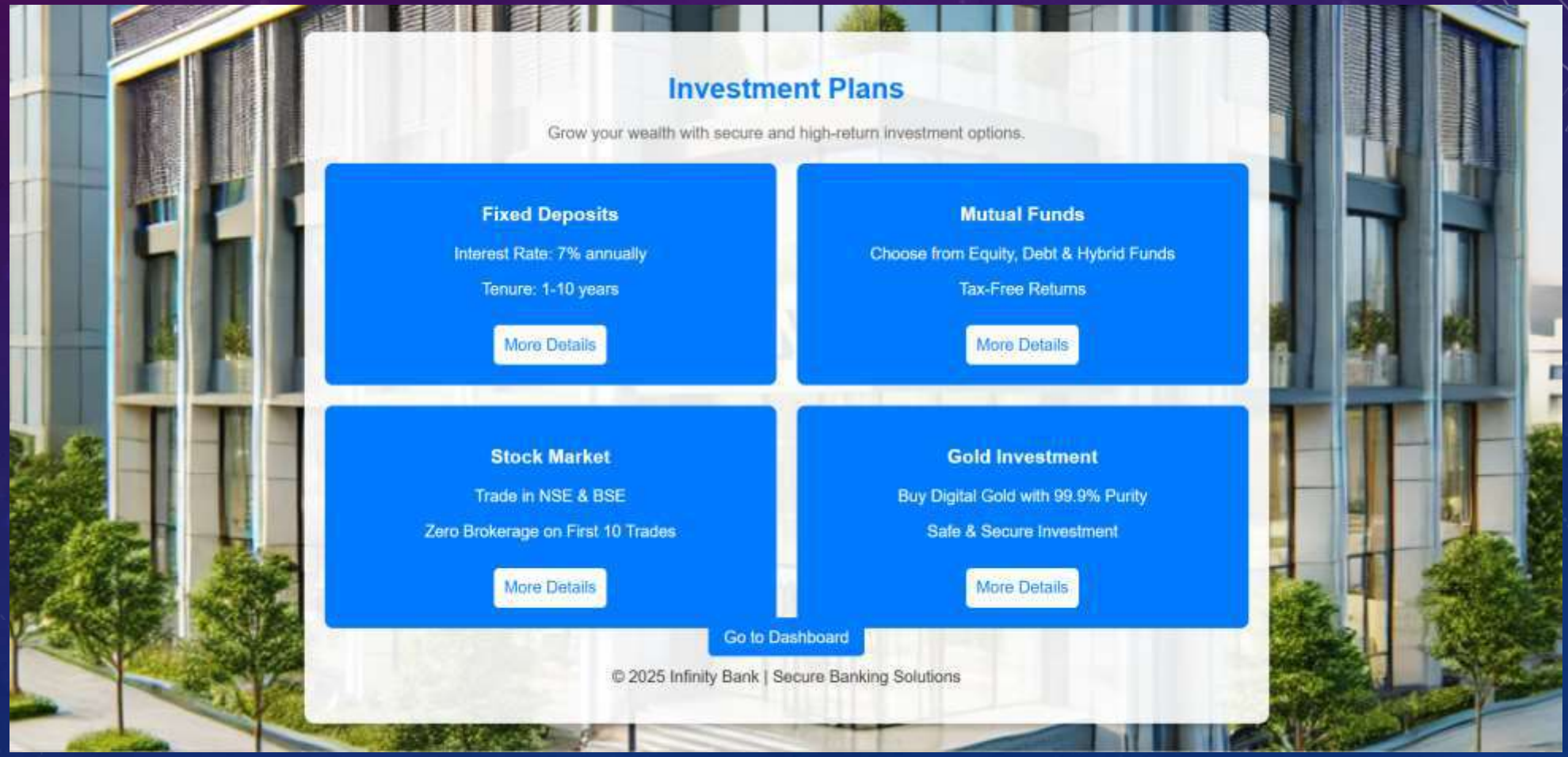
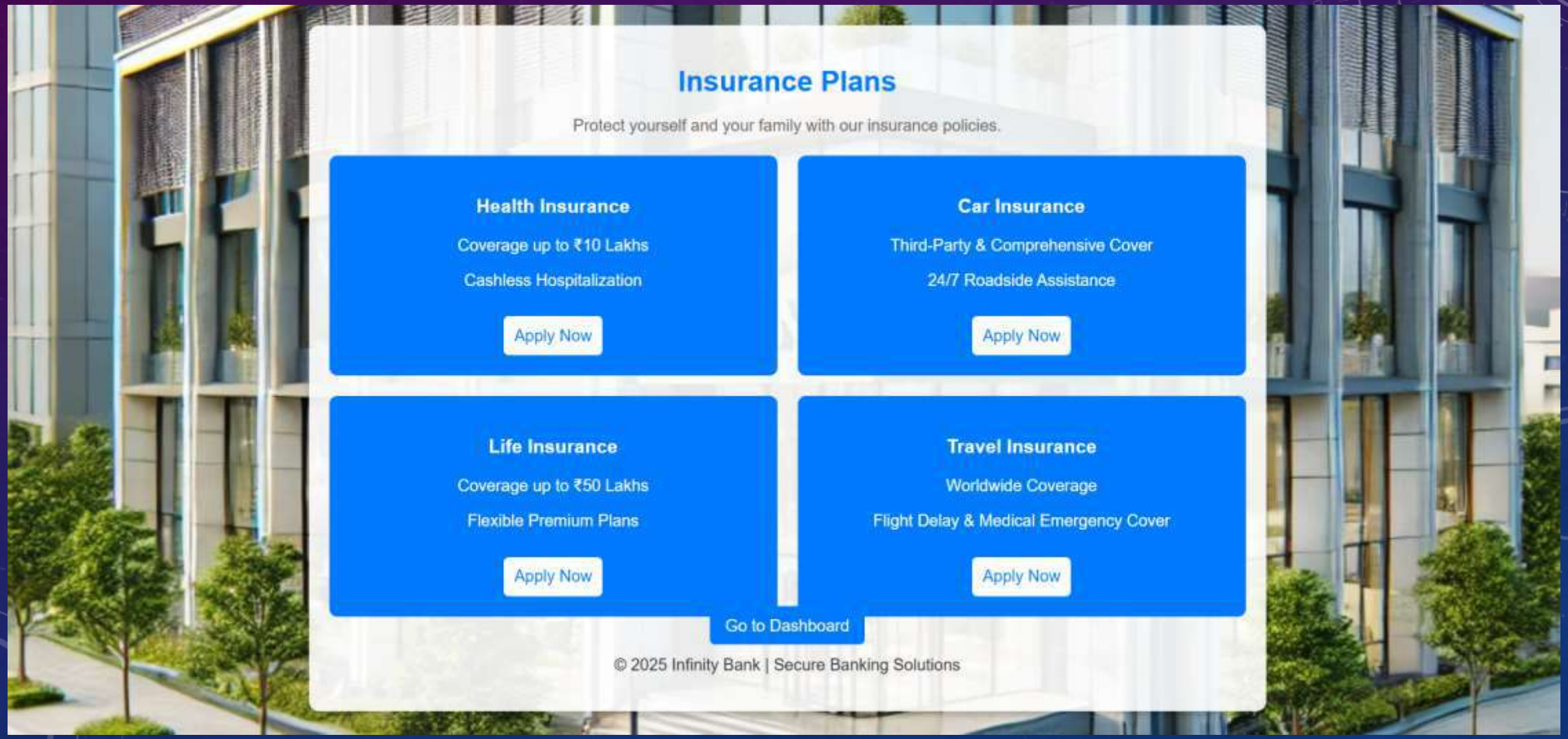
NAV-INVESTMENT

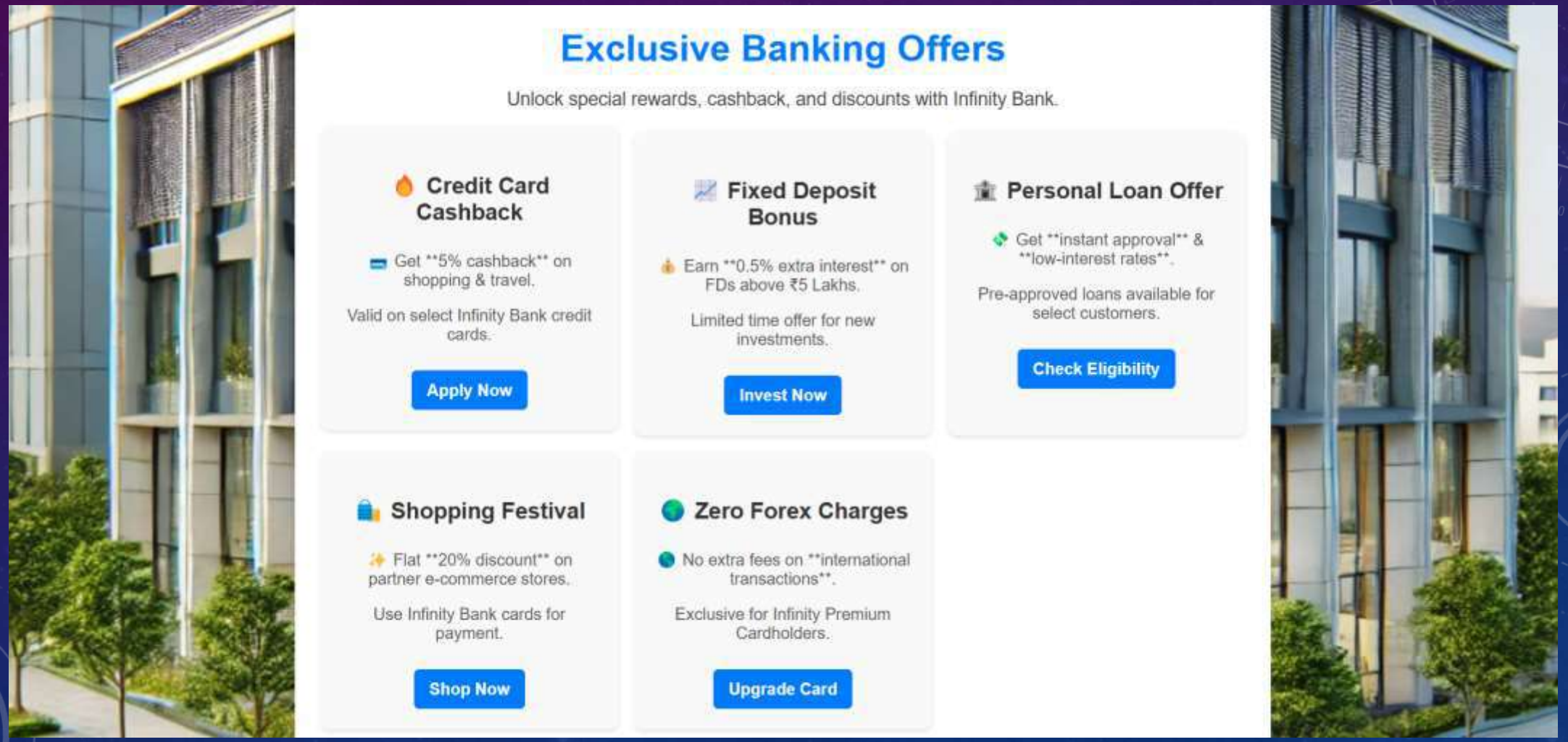


NAV-OTHER SERVICES

NAV-INSURANCE PLANS

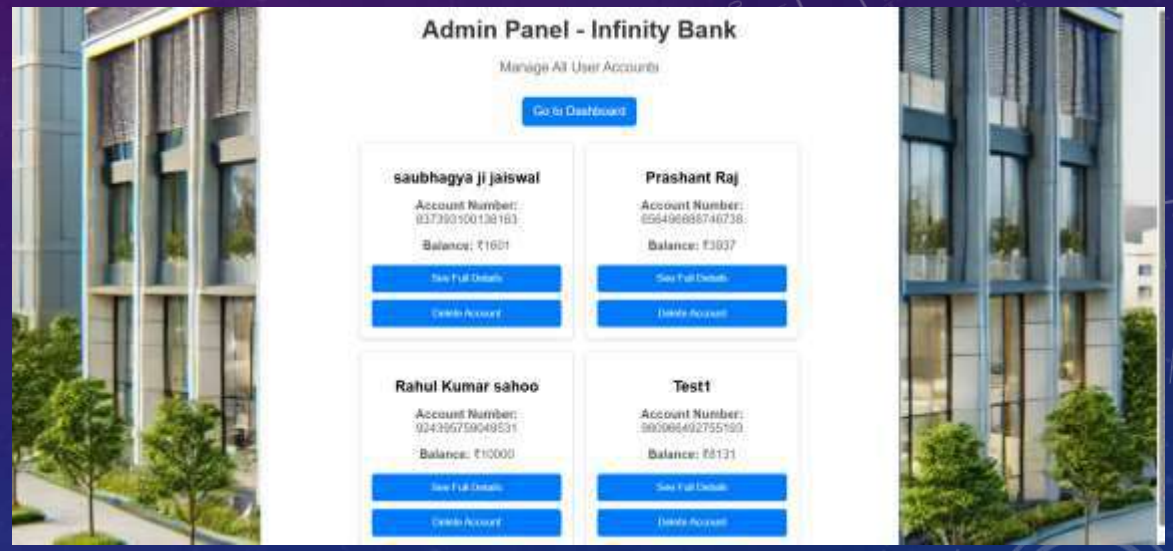


NAV-OFFERS


Exclusive Banking Offers
Unlock special rewards, cashback, and discounts with Infinity Bank.
Credit Card Cashback
Get **5% cashback** on shopping & travel.
Valid on select Infinity Bank credit cards.
Apply Now
Fixed Deposit Bonus
Earn **0.5% extra interest** on FDs above ₹5 Lakhs.
Limited time offer for new investments.
Invest Now
Personal Loan Offer
Get **instant approval** & **low-interest rates**.
Pre-approved loans available for select customers.
Check Eligibility
Shopping Festival
Flat **20% discount** on partner e-commerce stores.
Use Infinity Bank cards for payment.
Shop Now
Zero Forex Charges
No extra fees on **international transactions**.
Exclusive for Infinity Premium Cardholders.
Upgrade Card

ADMIN PANEL

Admin Login - Infinity Bank
Only authorized personnel can access this panel.
Username:
ra-one
Password:
Login


Admin Panel - Infinity Bank
Manage All User Accounts
Go to Dashboard
saubhagya ji jaiswal
Account Number:
837393150013816 3
Balance: ₹1601
Prashant Raj
Account Number:
656496888746738
Balance: ₹3037
Rahul Kumar sahoo
Account Number:
924395759049531
Balance: ₹10000
Test1
Account Number:
980986492755193
Balance: ₹8131

WHAT ADMIN CAN DO?

1. **User Management:** Create, update, and delete accounts.
2. **Transaction Monitoring:** View and manage user transactions.
3. **Data Storage:** Stores user details securely in JSON format.

TECHNOLOGY

- Frontend-HTML , CSS , Javascript
- Backend – Node.js , Express.js
- Database-JSON
- OTP authentication – Nodemailer(sends mail on registered email)
- Hosting(frontend)-github
- Hosting(backend)-render.com

DSA(DATA STRUCTURES)

- Obviously array
- Hash map(data storing in json file)
- Queue(otp storage and expiration system)
- Stack(updation of transaction history)

ISSUES

- Some fields in the user details page were displaying "undefined“ in admin panel.
- After deploying this page on github and render.com , any changes made to files during runtime (like deleting a user from JSON) **do not persist** after the server restarts.

FUTURE CHANGES

- **Database Integration:** Move from JSON file storage to MongoDB or MySQL for better scalability.
- **Transaction System:** Implement real-time fund transfer features between users.
- **Security Enhancements:** Add encryption for sensitive user data.
- **User Dashboard:** Improve UI/UX with enhanced dashboards and better visualization.

DEVELOPER Prashant Raj

Some of Pages is designed by Saubhagya Ji Jaiswal and Abhishek kumar

Thank You