

## Problem Statement:

Develop a Plug-and-Play Payment Gateway and Digital Account Opening Platform designed to serve any BFSI (Banking, Financial Services, Insurance) or Securities business. This platform should allow businesses to securely process payments, open customer accounts, and complete KYC procedures while being customizable and ready for deployment as a Software-as-a-Service (SaaS) model. The solution should be easy to integrate into any business environment, offering both payment processing and account opening features in a seamless, user-friendly interface.

## Technical Requirements:

- Backend: Use Node.js with Express.js to build RESTful APIs that support:
  - Payment Gateway: Handle secure transactions (card, UPI, wallet) and manage refunds, settlements, and transaction histories.
  - Account Opening: Manage customer registration, document submission, and KYC verification processes.
- Frontend: Develop a responsive ReactJS interface that allows:
  - Payment Management: Display transactions, provide options for payment, and manage payment failures.
  - Account Opening: Guide users through account registration, document uploads, and track KYC status.
- Database: Use MongoDB to store customer details, payment data, transaction history, and KYC status securely.
- GraphQL: Implement GraphQL for flexible querying of transactions, customer profiles, and account data, ensuring the front-end only fetches necessary data.
- Firebase: Use Firebase for real-time data synchronization and seamless updates across devices. Firebase's Firestore can manage dynamic updates to payment transactions and account statuses in real-time.
- SaaS Model: Design the platform for easy customization and integration into various businesses with multi-tenancy support. Each business should be able to customize branding, payment options, and KYC requirements while sharing a common backend infrastructure.

The solution should be a fully integrated, scalable, and customizable platform suitable for various businesses, with the ability to process payments and manage digital account openings while providing real-time data and notifications.