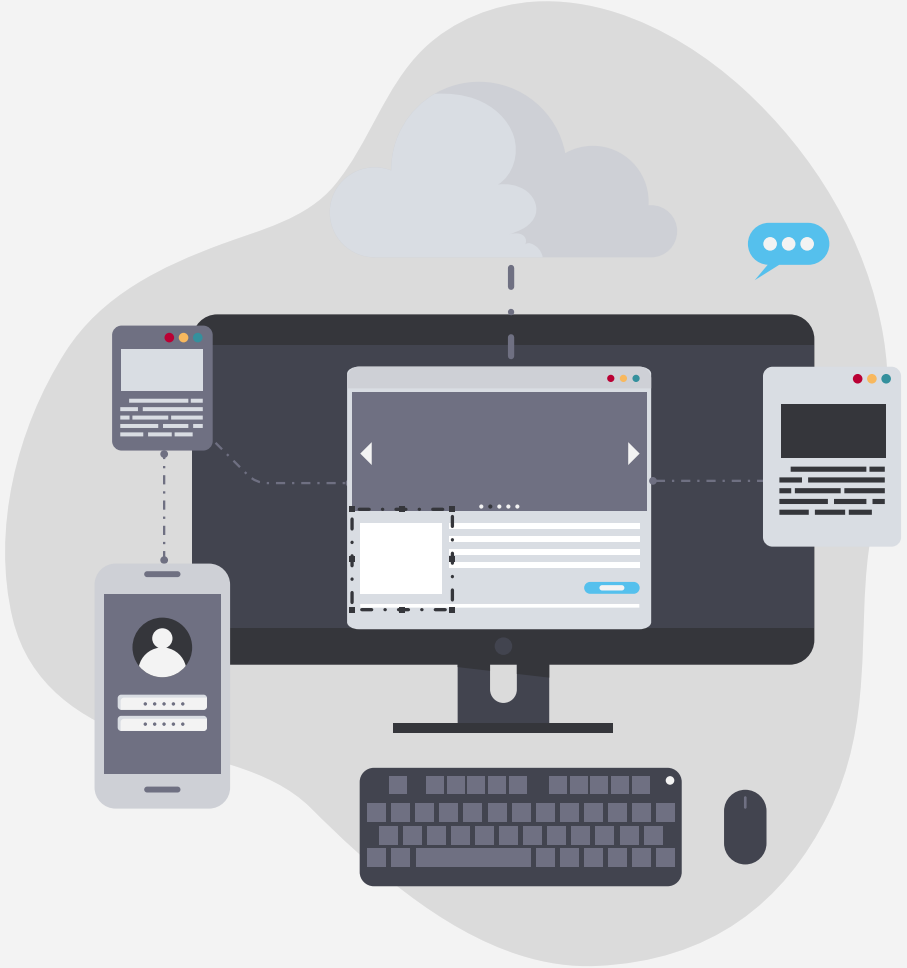
MILESTONE-4

INSURAI-CORPORATE POLICY AUTOMATION AND INTELLIGENCE SYSTEM



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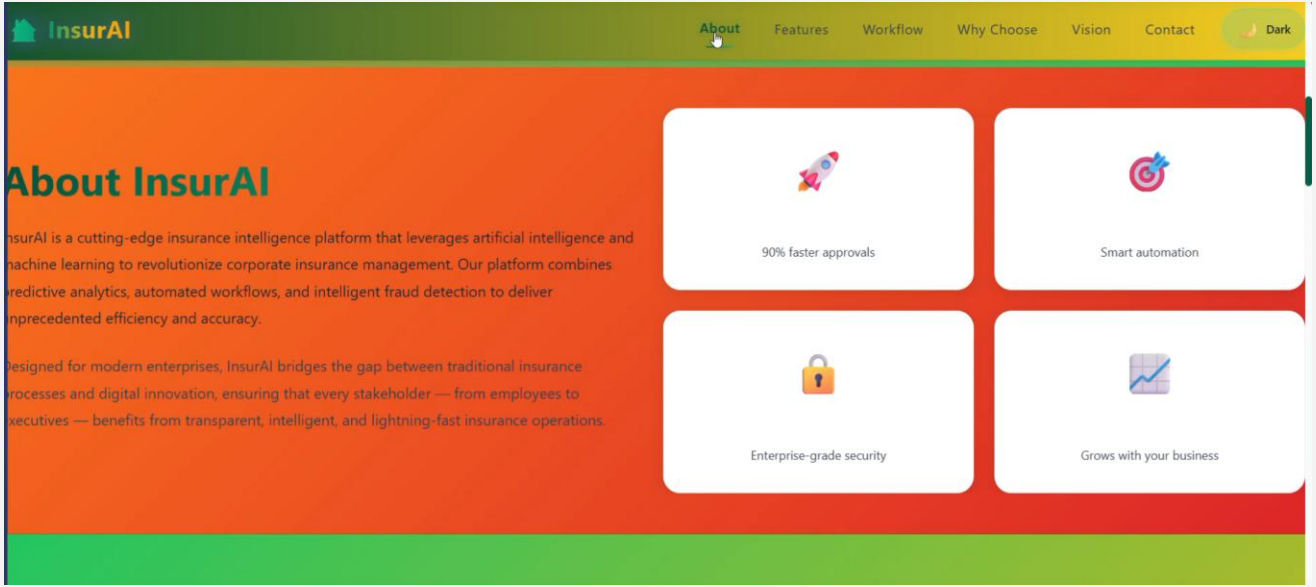
PROJECT OVERVIEW

InsurAI is an enterprise-grade insurance management platform that streamlines and automates corporate policy workflows. It provides intelligent tools for policy administration, risk assessment, claims processing, and compliance, enabling organizations to manage insurance portfolios efficiently and insightfully.



KEY HIGHLIGHTS

01

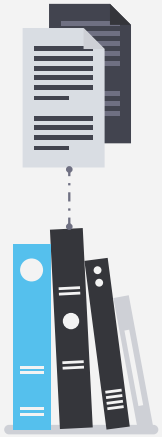
Web-based application Using React.js for frontend and Spring Boot for backend

02

MySQL database For structured storage

03

Scalable design For large enterprises with thousands of employees



04

Role-based access Employee, Agent, HR Admin, and System Admin

05

Real-time capabilities Provides real-time updates, automated workflows, AI-powered fraud detection, and comprehensive dashboards

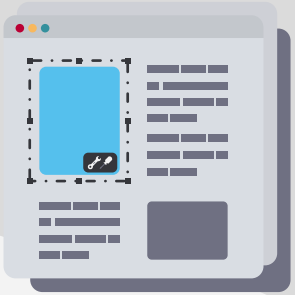
PROBLEM STATEMENT

Currently, corporate insurance management suffers from manual inefficiencies:

- Employees submit claims through forms or emails
- HR and insurance agents manually verify policies and eligibility
- Delays in claim approvals and approval errors are common
- Employees cannot track claim statuses in real time
- Lack of automated fraud detection results in financial losses
- Administrative overhead increases operational costs

PROJECT OBJECTIVE

The system aims to simplify policy management for employees and HR, speed up claim approvals via automation, provide transparency with real-time claim tracking, reduce fraud with AI-driven anomaly detection, and generate insights and reports for HR/Admin to improve decision-making.



SCOPE

Focused on corporate users, not individual policyholders.
Supports role-based access: Employees, Agents, HR Admin, System Admin.
Core functions include policy renewals, claim approvals, tax compliance, reporting, fraud detection, analytics, and dashboards.
Scalable for organizations of any size.

Key Features of InsurAI

Role-Based Logins

Secure access for Employee, Agent, HR, and Admin.

Automation

Auto policy renewals, claim eligibility checks, scheduled reports, and notifications.

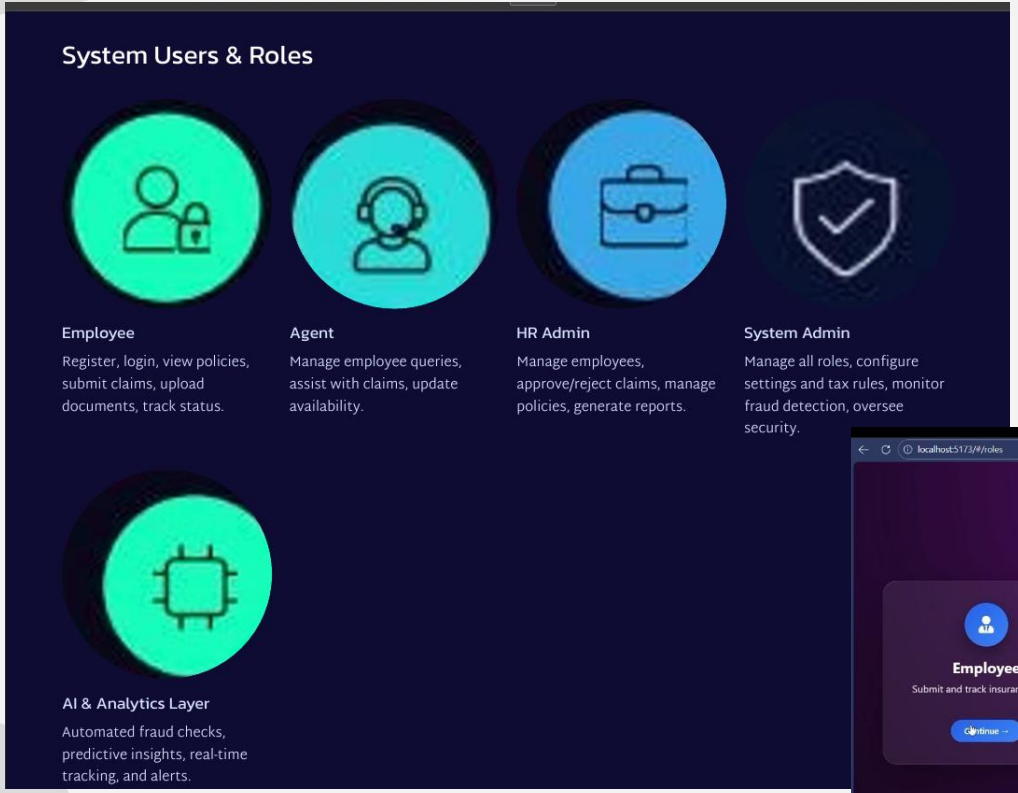
AI & Analytics

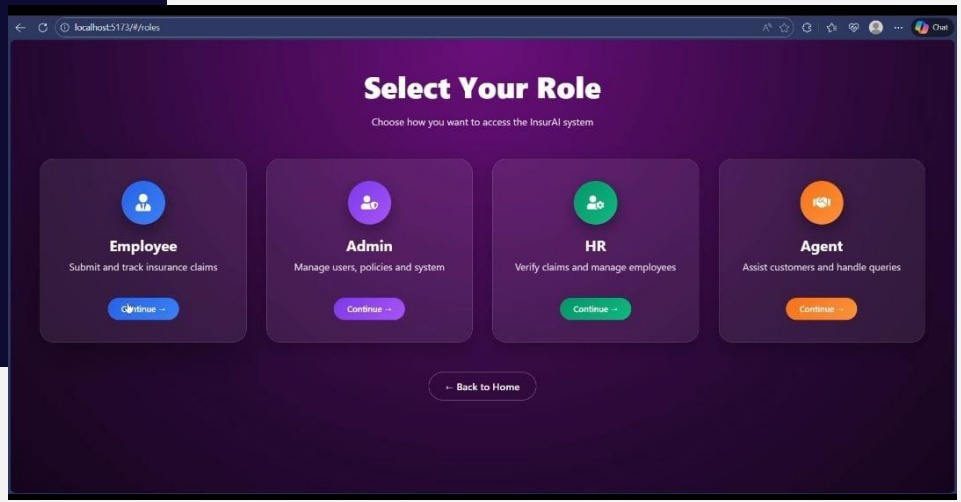
Fraud detection for duplicate claims, high amounts, suspicious patterns, and predictive insights.

Transparency

Real-time claim tracking and automated email/SMS notifications.

SYSTEM USERS AND ROLES





Advantages,Limitations And Future

ADVANTAGES

- Employees: Faster claims, transparency, real-time updates
- HR: Reduced workload, automated reporting
- Admin: Full control, fraud detection, compliance
- Company: Cost reduction, scalable and trusted solution

LIMITATIONS

- Web-only (mobile app planned in future)
- AI fraud detection initially rule-based; ML models will enhance accuracy
- Integration with external insurance providers pending
- Requires internet connectivity

FUTURE SCOPE

- Mobile apps (Android/iOS)

For employees

- Integration

With insurance companies and hospitals

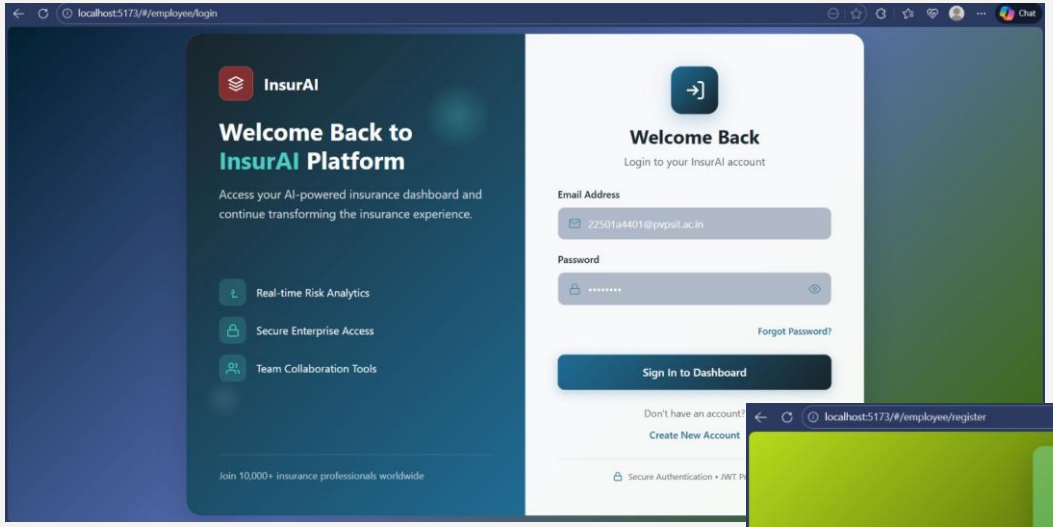
- Blockchain

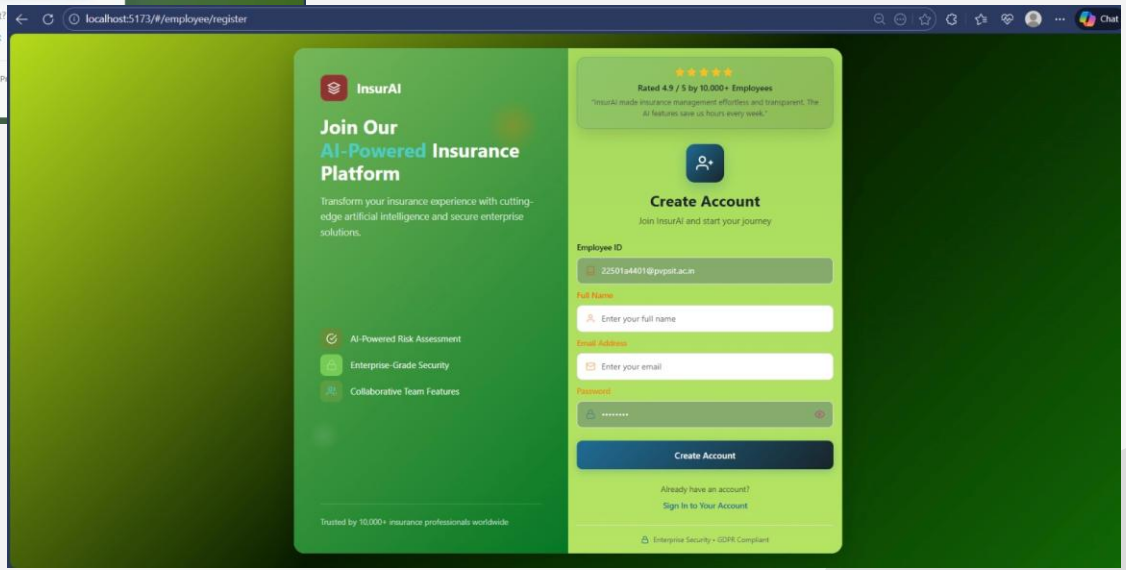
For secure claim history

- Cloud deployment

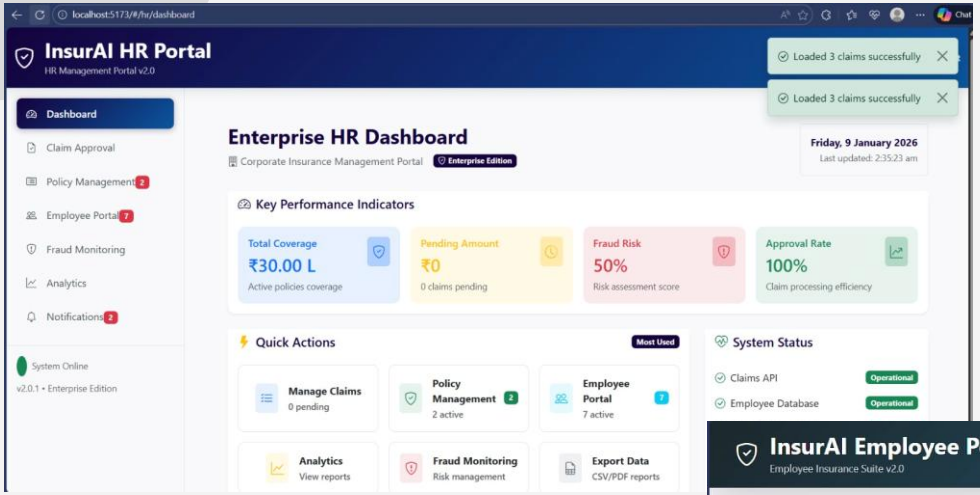
For large-scale use

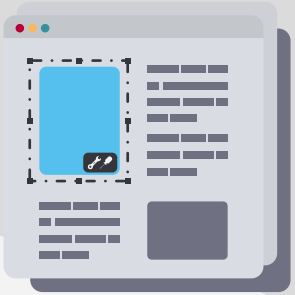
SCREENSHOTS

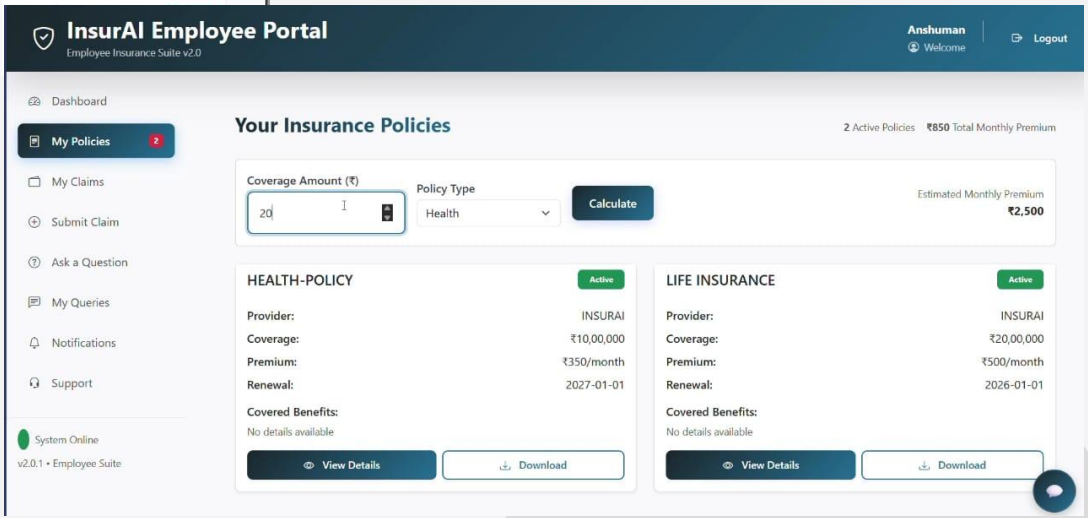




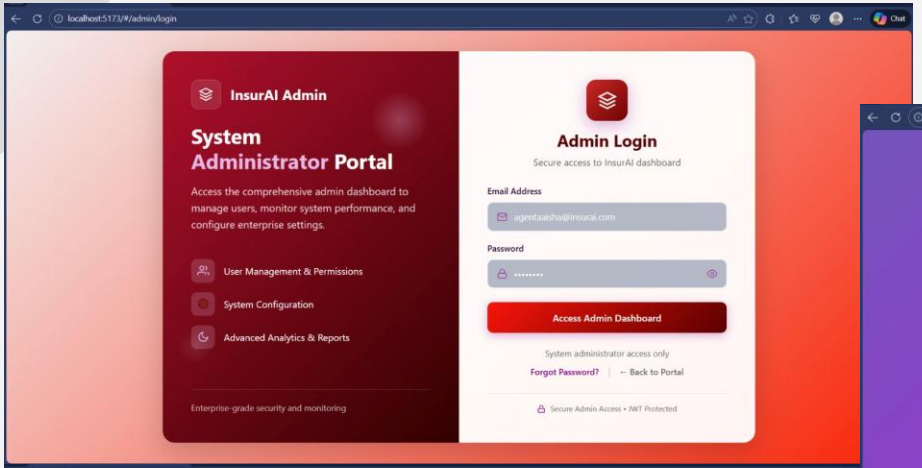
EMPLOYEE HR DASHBOARD,INSURANCE POLICIES

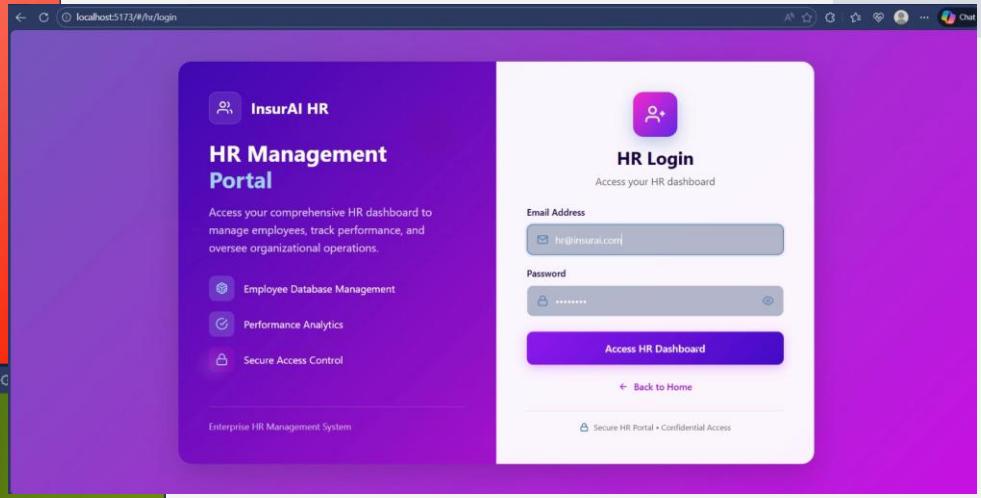


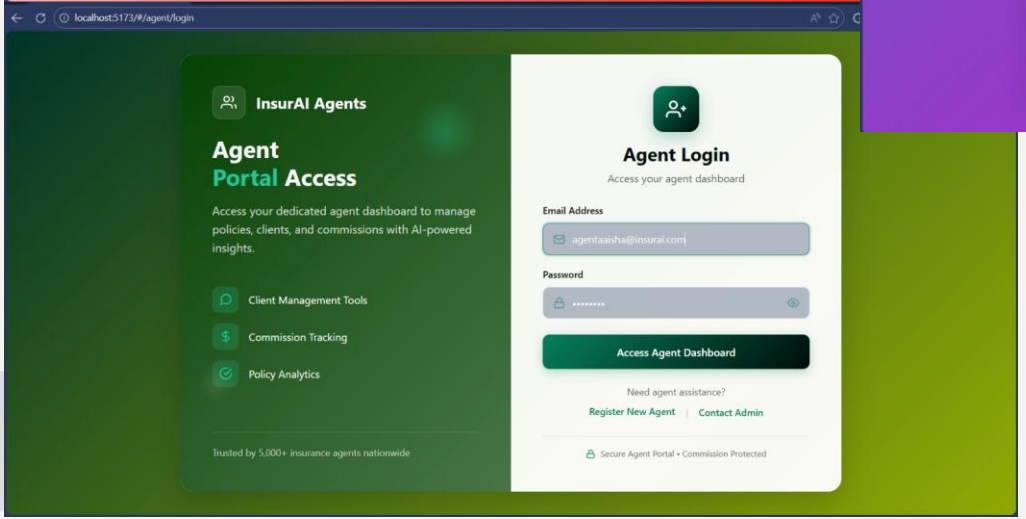




ADMIN LOGIN,AGENT LOGIN,HR LOGIN







Layered Architecture Design

The backend is divided into Controller, Service, Repository, and Database layers.
Each layer has a defined responsibility and interacts only with adjacent layers, resulting in a clean and modular architecture.

Controller Layer – Request Handling

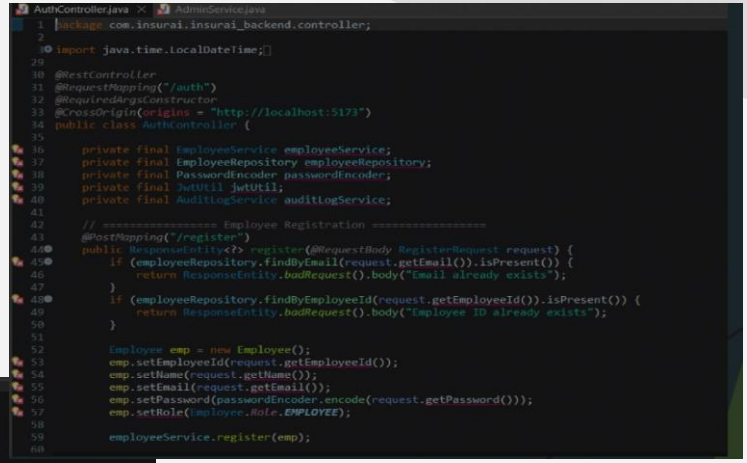
The controller layer handles incoming HTTP requests from the frontend. It maps API endpoints, accepts JSON data, and forwards requests to the service layer. Controllers do not contain business logic.

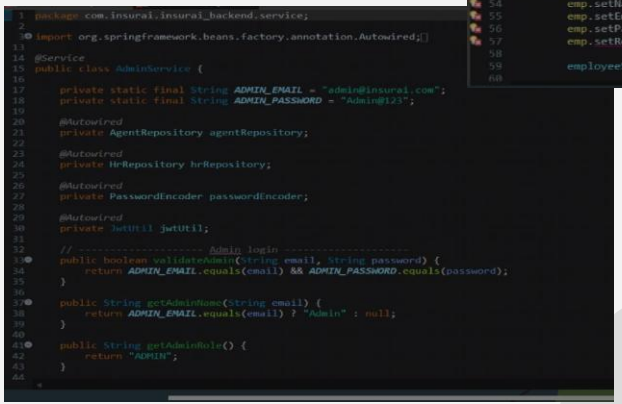
Service Layer – Business Logic

The service layer contains the core business logic of the application. It validates user inputs, processes workflows such as login and claim handling, and coordinates interactions between controllers and repositories.

Repository Layer and Database

The repository layer communicates directly with the database using Spring Data JPA. It performs CRUD operations, while the database stores role-based user data, claims, policies, and audit logs.





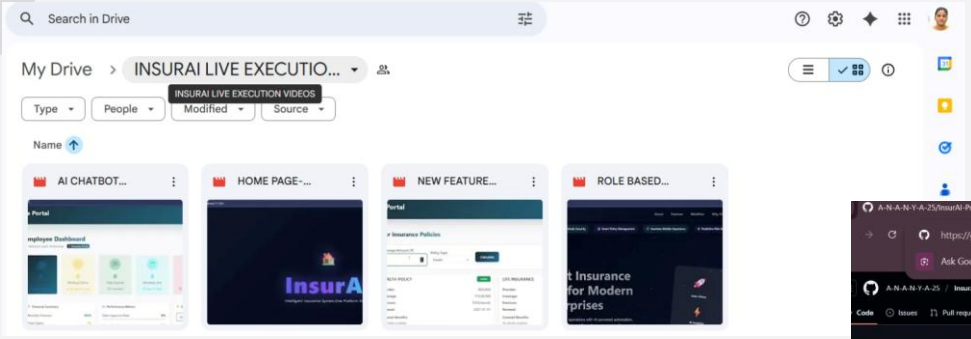
Workflow Example

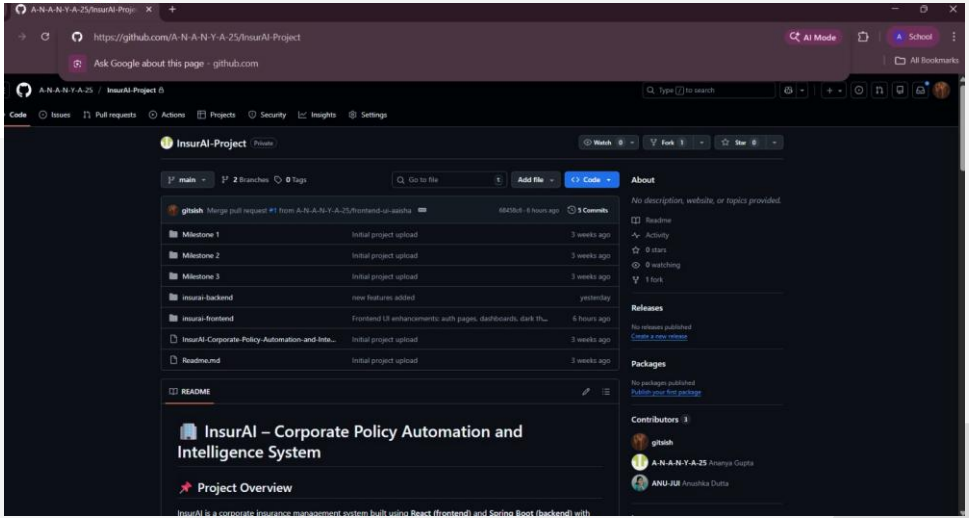
- Admin logs in → registers HR/Agent
- HR logs in → Agent logs in
- Employee self-registers/logs in
- Employee views policies → asks Agent queries
- Employee submits claim with documents
- System auto-checks fraud
- HR reviews → approves/rejects
- HR/Admin/Agent generate reports

GITHUB AND GOOGLE DRIVE LINK

Drive link:https://drive.google.com/drive/folders/1PpRvgcAbskYgv3I545NkfslyLUSdWW0t?usp=drive_link

GITHUB-Github link:https://github.com/A-N-A-N-Y-A-25/InsurAI-Project





CONCLUSION

InsurAI emerges as a comprehensive, enterprise-grade solution poised to revolutionize the insurance claims process. By leveraging advanced technology, it delivers substantial value across the organization:

- Enhanced Efficiency: Streamlines claims management, significantly reducing workload for HR and admin staff.
- Unparalleled Transparency: Offers real-time updates and clear visibility for employees, fostering trust and satisfaction.
- Robust Control & Compliance: Provides administrators with full oversight, advanced fraud detection, and ensures regulatory adherence.
- Strategic Growth: Delivers cost savings, scalability, and a trusted platform, supporting the company's long-term objectives.
- Future-Proofing: With planned mobile integrations, advanced AI capabilities, and blockchain security, InsurAI is designed for continuous evolution and adaptation to emerging needs.

InsurAI is more than just a tool; it is a strategic partner for businesses aiming for a smarter, more secure, and employee-centric future in insurance claims management.

THANK YOU!