Infosys Springboard Virtual Internship 6.0 Completion Report

Team Details <Do not mention any personally identifiable information like email ID, institute details, mobile phone number etc.>
Batch Number: 5

Start date: 13-10-2025

Names: Rachapudi Sai Sree

Internship Duration: 8 Weeks

1. Project Title

Infosys_InsurAI – Corporate Policy Automation & Intelligence System

2. Project Objective

The primary objective of the project was to design and develop a secure, scalable, and intelligent insurance management system that automates policy handling, agent onboarding, and customer interactions.
The system aims to digitalize the insurance workflow, reduce manual verification, and enhance accessibility for customers, agents, and administrators through a role-based web platform.

This project aligns with the evolving digital transformation requirements within the insurance industry by ensuring faster onboarding, secure authentication, and automated processing.

3. Project description in detail

The **Infosys_InsurAI** system was developed as a full-stack web application leveraging **Spring Boot** and **MySQL** for backend services and **React.js** for the frontend interface.

My Approach

The project was divided into multiple phases covering authentication, authorization, agent verification, dashboard design, and partial implementation of intelligent features.

Key Features Developed

✓ JWT-based secure login & authentication
✓ Role-based access system (Customer / Agent / Admin)
✓ Document upload for agent verification
✓ Admin module to verify pending agent applications
✓ Integrated React frontend with backend APIs
✓ Partially implemented AI logic (rule-based suggestions for policy recommendations)
✓ Attractive dashboards for each role (Customer / Agent / Admin)

Technologies Used

- **Backend: Spring Boot, Spring Security, JWT, MySQL**
- **Frontend: React.js, HTML, CSS**
- **Tools: Postman, VS Code, Eclipse, Git**
- **Database: MySQL Workbench**

4. Timeline Overview

Week	Activities Planned	Activities Completed
Week 1	Requirement analysis, backend setup	Backend project setup, DB schema design completed
Week 2	Implement authentication	JWT authentication, Login/Registration completed
Week 3	Develop role-based access	Customer/Agent/Admin role segregation completed
Week 4	Agent verification workflow	File upload API + Admin agent approval built
Week 5	Frontend integration	Login/Register + Dashboard UI created, APIs integrated
Week 6	Admin module completion	View pending agents, approve/reject with email trigger (backend logic)
Week 7	Customer & Agent dashboards	Display policy suggestions, agent profile, and application flow
Week 8	Language Translation	Added Telugu,Hindi,Tamil and English languages for diversity

5a. Key Milestones

Milestone	Description	Status
Project Kickoff	Understanding requirements	Completed
Backend Foundation	API structure, JWT, DB setup	Completed
Role-based System	Roles: Customer/Agent/Admin	Completed
File Upload Module	Agent verification docs	Completed
Frontend Integration	React + Spring Boot integration	Completed
Mid-term Review	Backend + partial frontend	Achieved
Final Submission	Functional full-stack application	Completed

5b. Project execution details

The project implementation followed a module-wise approach:

Backend Execution

- Designed relational tables for Users, AgentDocuments, and Roles.
- Built REST APIs for:
  - Login / Register
  - Agent document upload
  - Admin verification and rejection
- Added JWT filters for secure request validation.
- Implemented role-based URL protection through Spring Security.
- Developed logic for:
  - Fetching pending agent requests
  - Approving agents & updating database state
  - Rejecting agents with reason (email logic added on backend side)
- Optimized responses for frontend consumption.

Frontend Execution

- Built UI pages:
  - Login & Register
  - Customer Dashboard
  - Agent Dashboard
  - Admin Dashboard
- Integrated all backend APIs using Axios.
- Implemented:
  - Conditional rendering based on roles
  - File upload UI
  - Dynamic tables for admin agent verification
- Designed responsive layouts using CSS (no external UI frameworks).
- Handled CORS issues between React and Spring Boot using proxy + backend configuration.

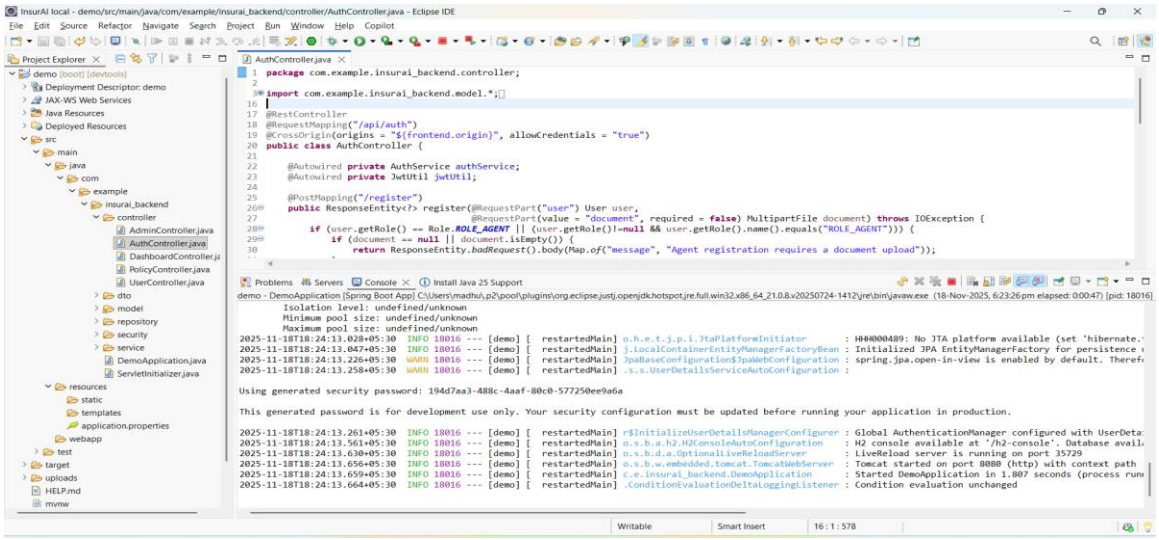
- Validated all user flows end to end.

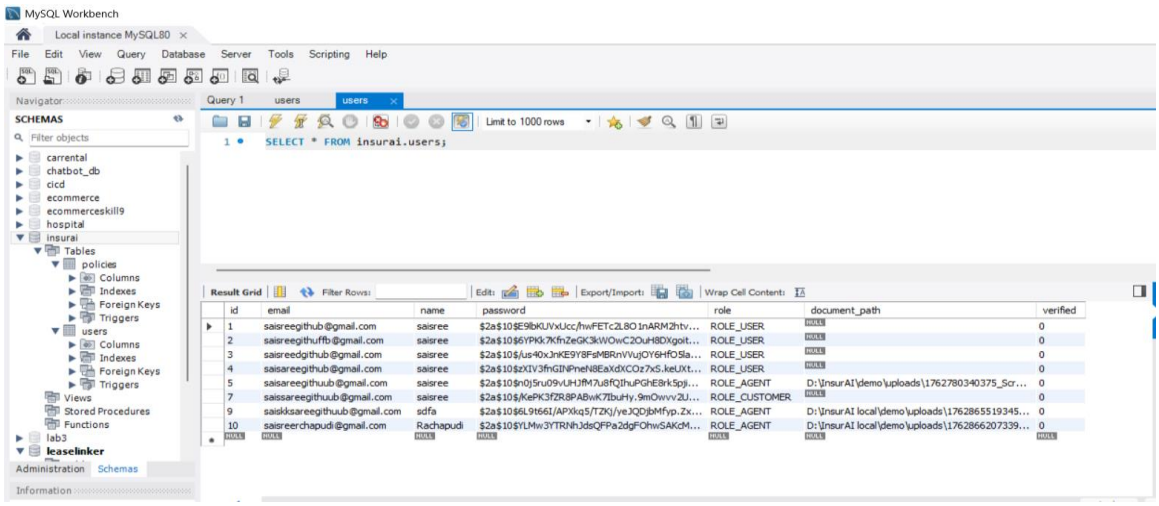
- Designed tables for users and agent documents using MySQL.
- Implemented secure REST APIs using Spring Boot.
- Added JWT authentication with login/registration endpoints.
- Implemented role-based authorization using Spring Security filters.
- Built admin APIs for viewing pending agents and verifying them.

Frontend Execution

- Used React to create Login, Register, Admin, Customer, and Agent dashboards.
- Integrated backend APIs with Axios.
- Added external CSS for a professional and attractive UI design.
- Tested user flows for all three roles: Customer, Agent, and Admin.

6. Snapshots / Screenshots


InsurAI local - demo/src/main/java/com/example/insurai_backend/controller/AuthController.java - Eclipse IDE
package com.example.insurai_backend.controller;
import com.example.insurai_backend.model.*;
@RestController
@RequestMapping("/api/auth")
@CrossOrigin(origins = "${frontend.origin}", allowCredentials = "true")
public class AuthController {
@Autowired private AuthService authService;
@Autowired private JwtUtil jwtUtil;
@PostMapping("/register")
public ResponseEntity<?> register(@RequestPart("user") User user,
@RequestPart(value = "document", required = false) MultipartFile document) throws IOException {
if (user.getRole() == Role.ROLE_AGENT || (user.getRole()!=null && user.getRole().name().equals("ROLE_AGENT"))) {
if (document == null || document.isEmpty()) {
return ResponseEntity.badRequest().body(Map.of("message", "Agent registration requires a document upload"));
Using generated security password: 194d7aa3-488c-4aaf-80c0-577250ee9a6a
This generated password is for development use only. Your security configuration must be updated before running your application in production.


MySQL Workbench
Local instance MySQL80
SELECT * FROM insurai.users;
Result Grid
id email name password role document_path verified
1 saisreegithub@gmail.com saisree $2a$10$E9lbKUVxUcc/hwFETc2L8O1nARM2htv... ROLE_USER 0
2 saisreegithuffb@gmail.com saisree $2a$10$6YPKk7KfnZeGK3kWOwC2OuH8DXgoit... ROLE_USER 0
3 saisreedgithub@gmail.com saisree $2a$10$/us40xJnKE9Y8FsMBRnVVujOY6HfO5la... ROLE_USER 0
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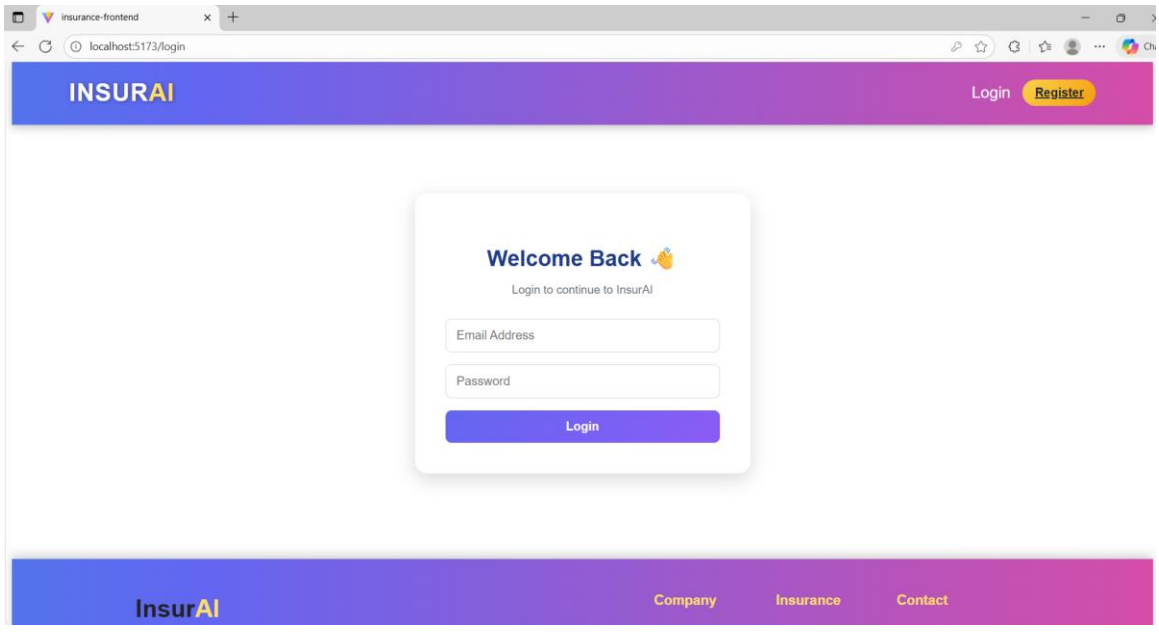
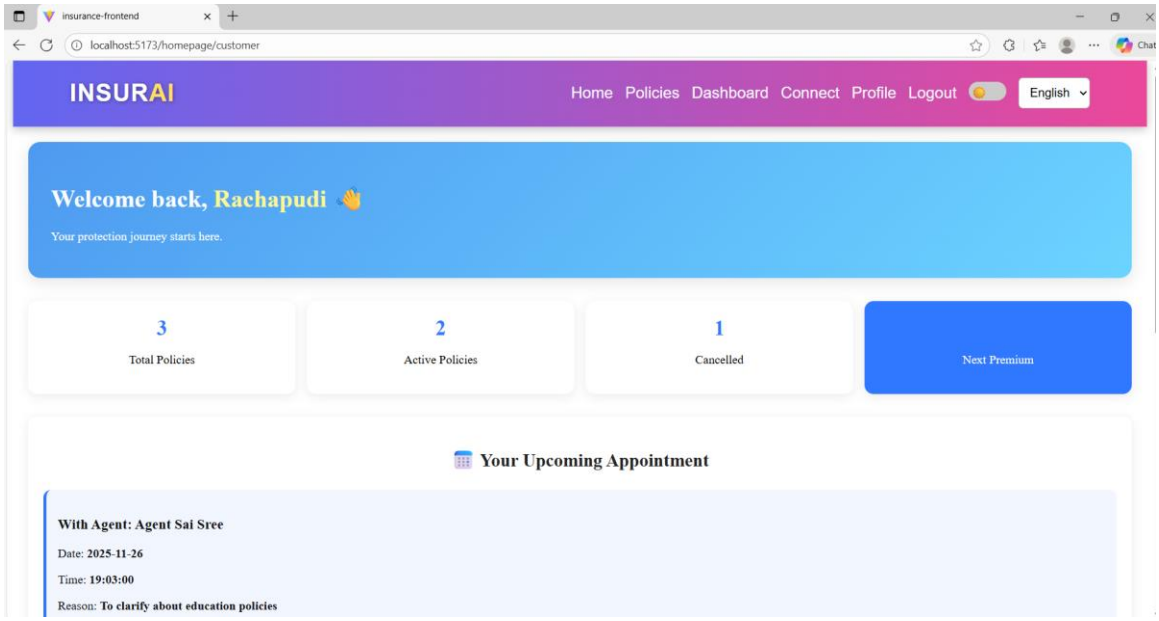
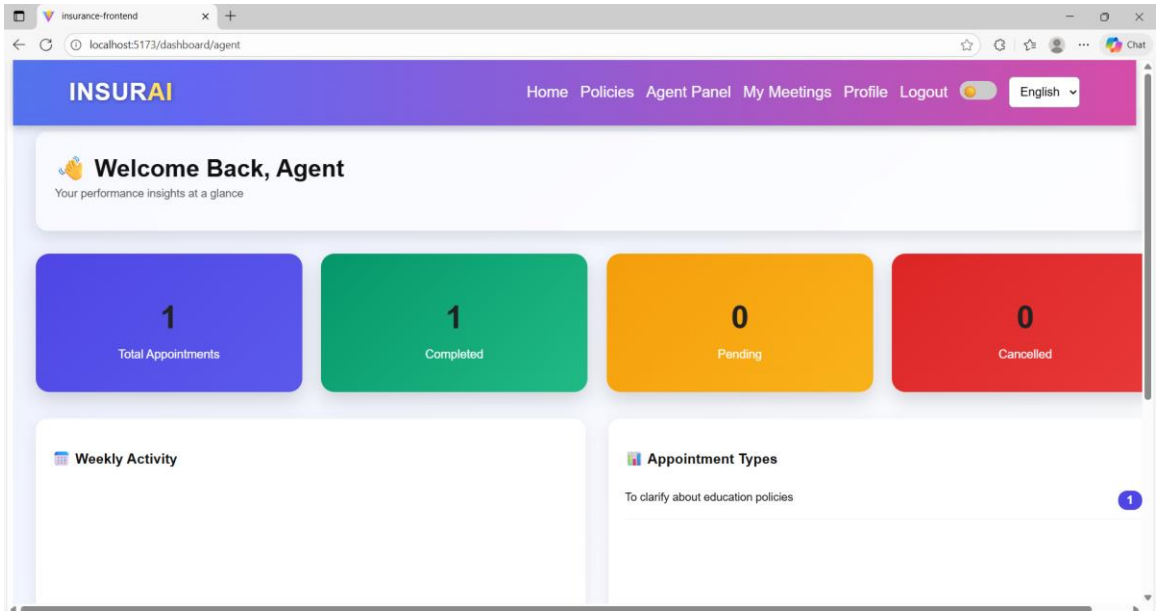
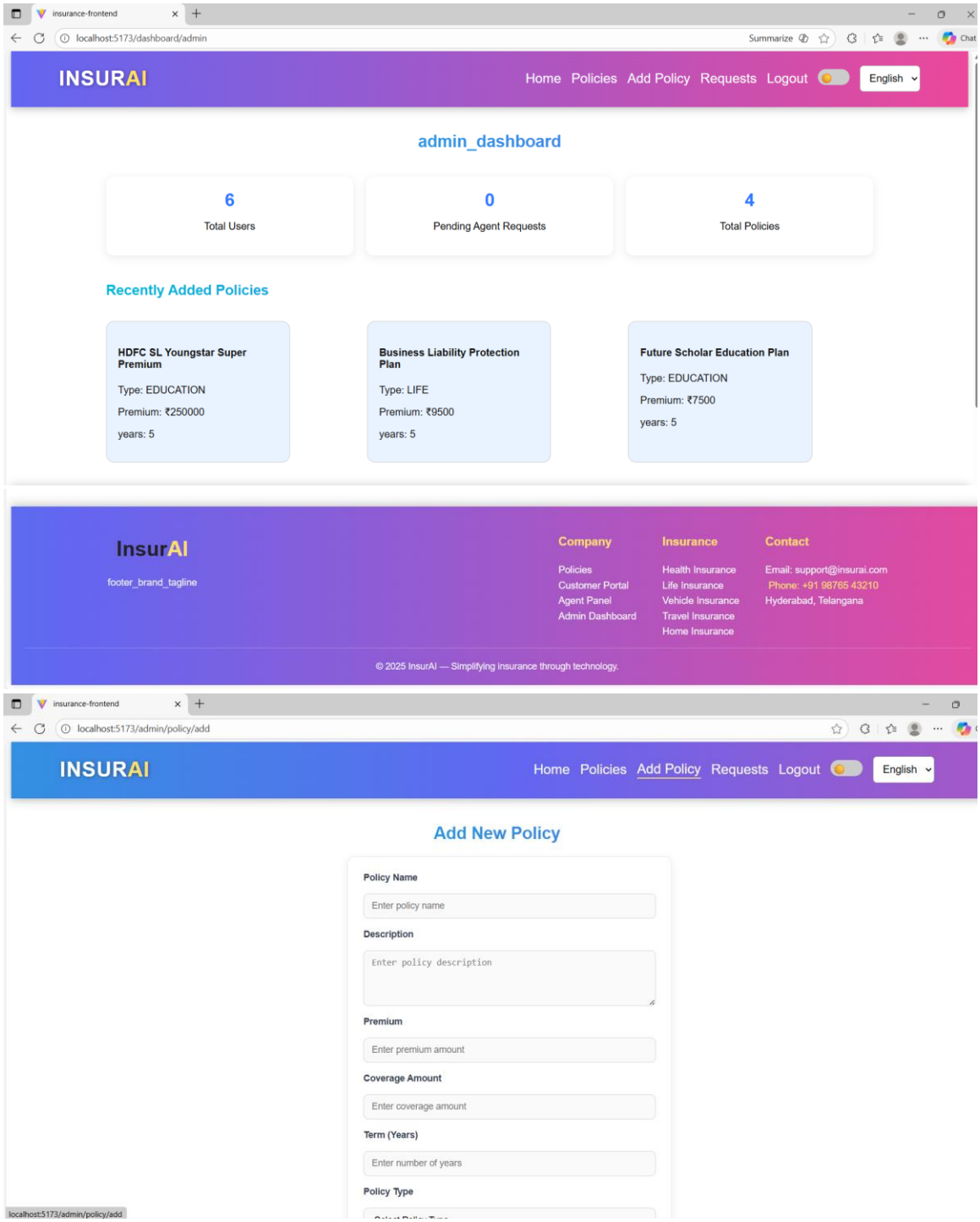
5 saisareegithuub@gmail.com saisree $2a$10$n0j5ru09vUHJfM7u8fQIhuPGhE8rk5pji... ROLE_AGENT D:\InsurAI\demo\uploads\1762780340375_Scr... 0
7 saissareegithuub@gmail.com saisree $2a$10$/KePK3fZR8PABwK7IbuHy.9mOwvv2U... ROLE_CUSTOMER 0
9 saiskksareegithuub@gmail.com sdfa $2a$10$6L9t66I/APXkq5/TZKj/yeJQDjbMfyp.Zx... ROLE_AGENT D:\InsurAI local\demo\uploads\1762865519345... 0
10 saisreerchapudi@gmail.com Rachapudi $2a$10$YLMw3YTRNhJdsQFPa2dgFOhwSAKdM... ROLE_AGENT D:\InsurAI local\demo\uploads\1762866207339... 0


insurance-frontend
localhost:5173/login
INSURAI
Login
Register
Welcome Back
Login to continue to InsurAI
Email Address
Password
Login
InsurAI
Company
Insurance
Contact


insurance-frontend
localhost:5173/homepage/customer
INSURAI
Home Policies Dashboard Connect Profile Logout
English
Welcome back, Rachapudi
Your protection journey starts here.
3
Total Policies
2
Active Policies
1
Cancelled
Next Premium
Your Upcoming Appointment
With Agent: Agent Sai Sree
Date: 2025-11-26
Time: 19:03:00
Reason: To clarify about education policies


insurance-frontend
localhost:5173/dashboard/agent
INSURAI
Home Policies Agent Panel My Meetings Profile Logout
English
Welcome Back, Agent
Your performance insights at a glance
1
Total Appointments
1
Completed
0
Pending
0
Cancelled
Weekly Activity
Appointment Types
To clarify about education policies
1


insurance-frontend
localhost:5173/dashboard/admin
INSURAI
Home Policies Add Policy Requests Logout
English
admin_dashboard
6
Total Users
0
Pending Agent Requests
4
Total Policies
Recently Added Policies
HDFC SL Youngstar Super Premium
Type: EDUCATION
Premium: ₹250000
years: 5
Business Liability Protection Plan
Type: LIFE
Premium: ₹9500
years: 5
Future Scholar Education Plan
Type: EDUCATION
Premium: ₹7500
years: 5
InsurAI
footer_brand_tagline
Company
Policies
Customer Portal
Agent Panel
Admin Dashboard
Insurance
Health Insurance
Life Insurance
Vehicle Insurance
Travel Insurance
Home Insurance
Contact
Email: support@insurai.com
Phone: +91 98765 43210
Hyderabad, Telangana
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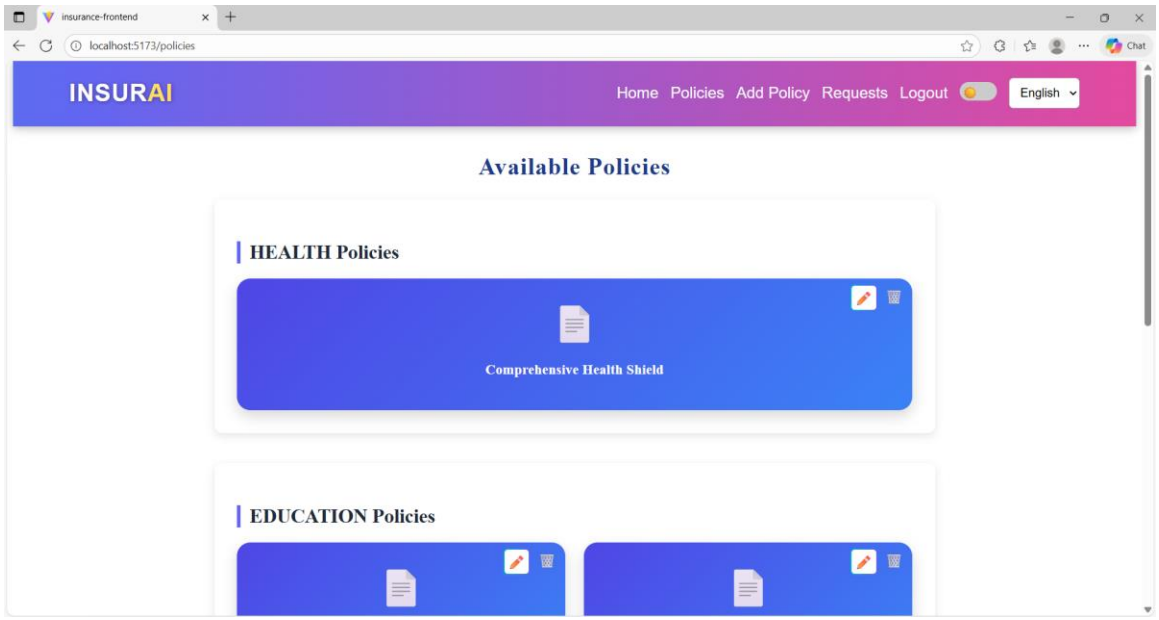
insurance-frontend
localhost:5173/admin/policy/add
INSURAI
Home Policies Add Policy Requests Logout
English
Add New Policy
Policy Name
Enter policy name
Description
Enter policy description
Premium
Enter premium amount
Coverage Amount
Enter coverage amount
Term (Years)
Enter number of years
Policy Type
localhost:5173/admin/policy/add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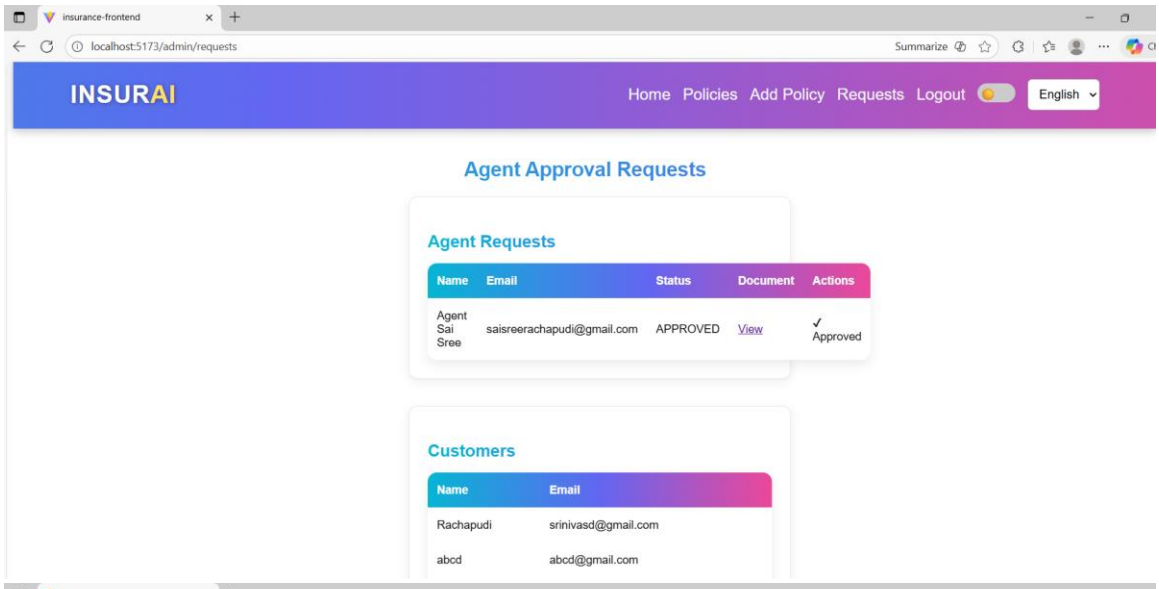
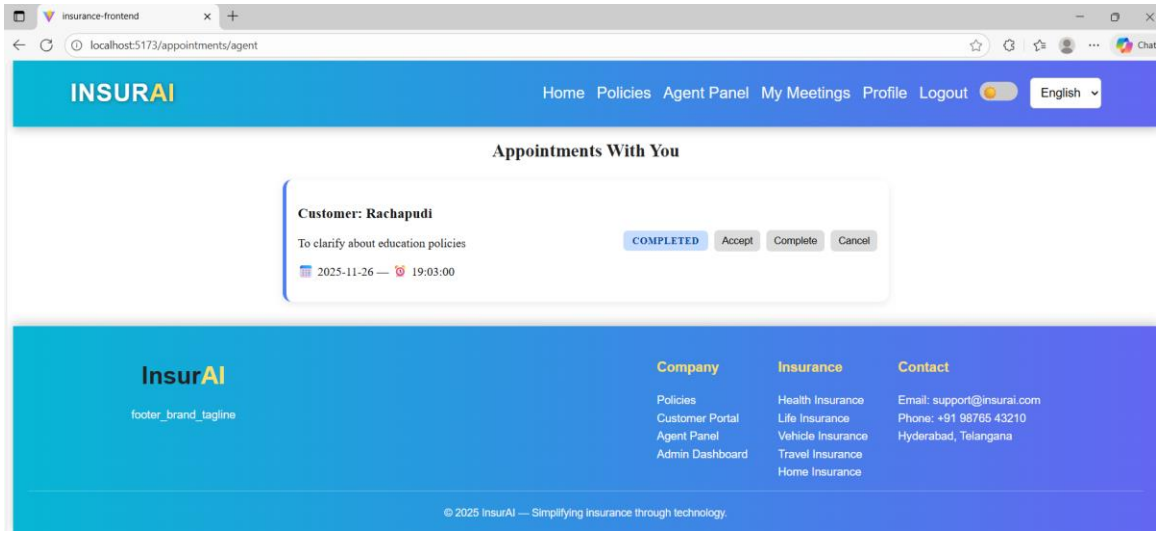
localhost:5173/policies
INSURAI
Home Policies Add Policy Requests Logout
English
Available Policies
HEALTH Policies
Comprehensive Health Shield
EDUCATION Policies


insurance-frontend
localhost:5173/admin/requests
INSURAI
Home Policies Add Policy Requests Logout
English
Agent Approval Requests
Agent Requests
Name Email Status Document Actions
Agent Sai Sree
saisreerachapudi@gmail.com
APPROVED
View
✓ Approved
Customers
Name Email
Rachapudi
srinivasd@gmail.com
abcd
abcd@gmail.com


insurance-frontend
localhost:5173/appointments/agent
INSURAI
Home Policies Agent Panel My Meetings Profile Logout
English
Appointments With You
Customer: Rachapudi
To clarify about education policies
2025-11-26 — 19:03:00
COMPLETED
Accept
Complete
Cancel
InsurAI
footer_brand_tagline
Company
Policies
Customer Portal
Agent Panel
Admin Dashboard
Insurance
Health Insurance
Life Insurance
Vehicle Insurance
Travel Insurance
Home Insurance
Contact
Email: support@insurai.com
Phone: +91 98765 43210
Hyderabad, Telangana
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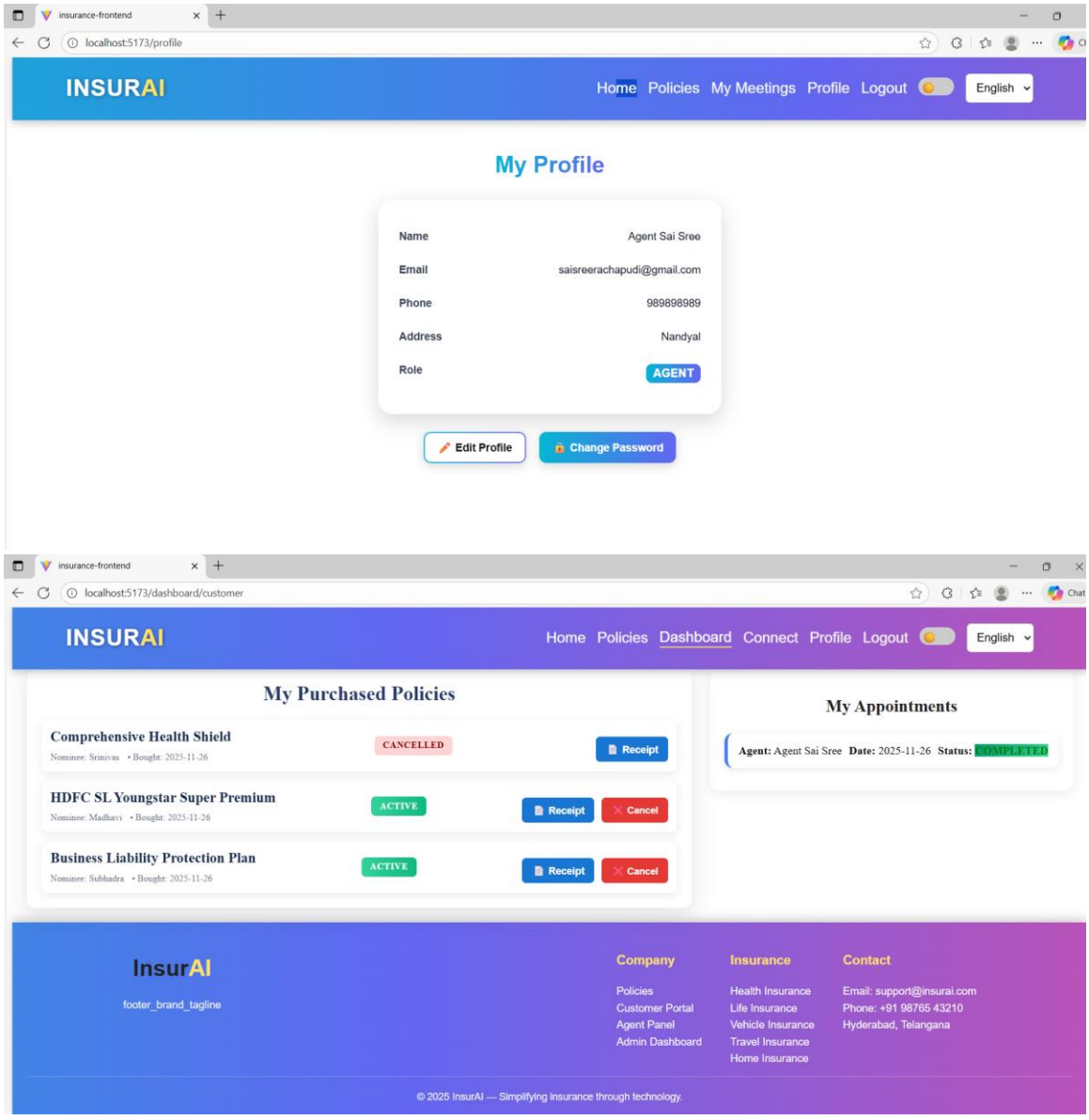
insurance-frontend
localhost:5173/profile
INSURAI
Home Policies My Meetings Profile Logout
English
My Profile
Name
Agent Sai Sree
Email
saisreerachapudi@gmail.com
Phone
989898989
Address
Nandyal
Role
AGENT
Edit Profile
Change Password
insurance-frontend
localhost:5173/dashboard/customer
INSURAI
Home Policies Dashboard Connect Profile Logout
English
My Purchased Policies
Comprehensive Health Shield
Nominee: Srinivas • Bought: 2025-11-26
CANCELLED
Receipt
HDFC SL Youngstar Super Premium
Nominee: Madhavi • Bought: 2025-11-26
ACTIVE
Receipt
Cancel
Business Liability Protection Plan
Nominee: Subhadra • Bought: 2025-11-26
ACTIVE
Receipt
Cancel
My Appointments
Agent: Agent Sai Sree Date: 2025-11-26 Status: COMPLETED
InsurAI
footer_brand_tagline
Company
Policies
Customer Portal
Agent Panel
Admin Dashboard
Insurance
Health Insurance
Life Insurance
Vehicle Insurance
Travel Insurance
Home Insurance
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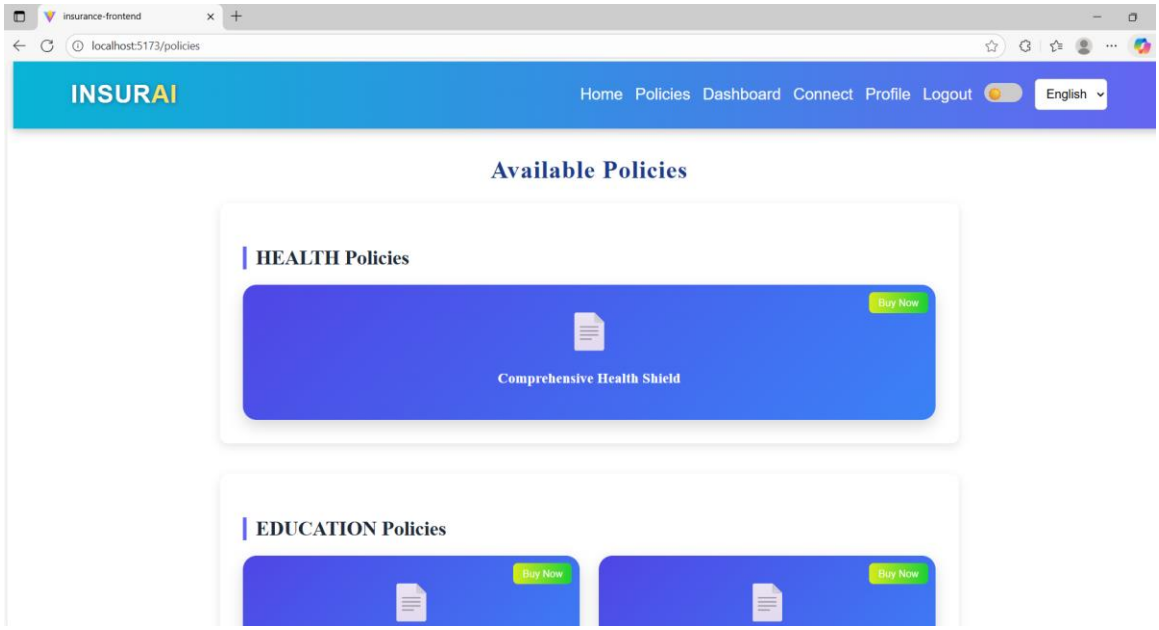
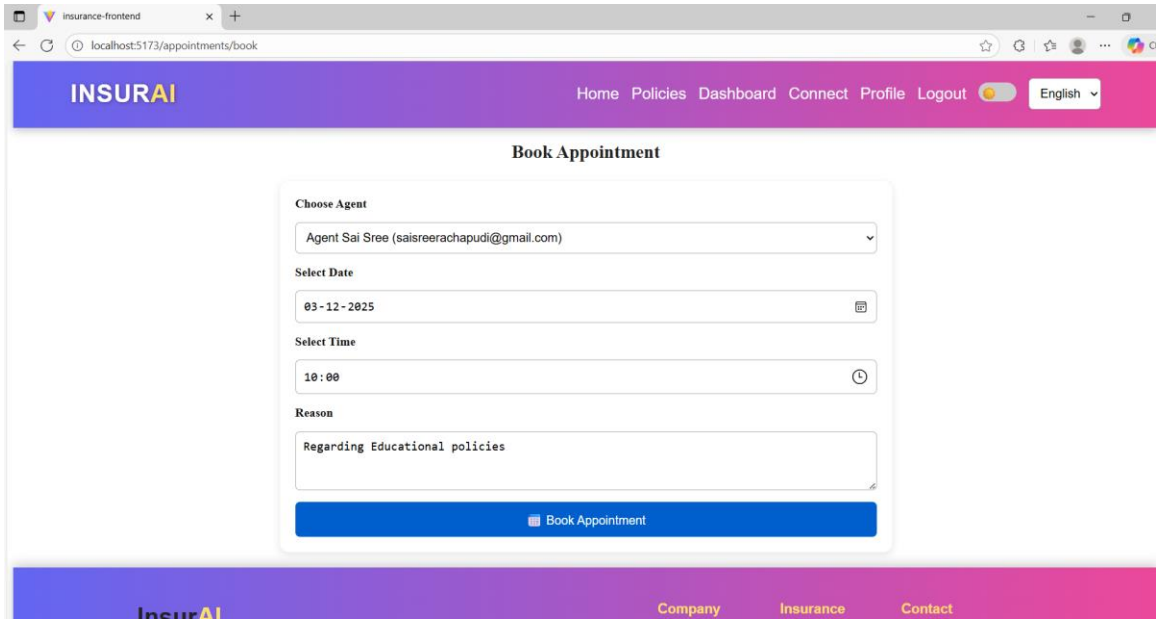
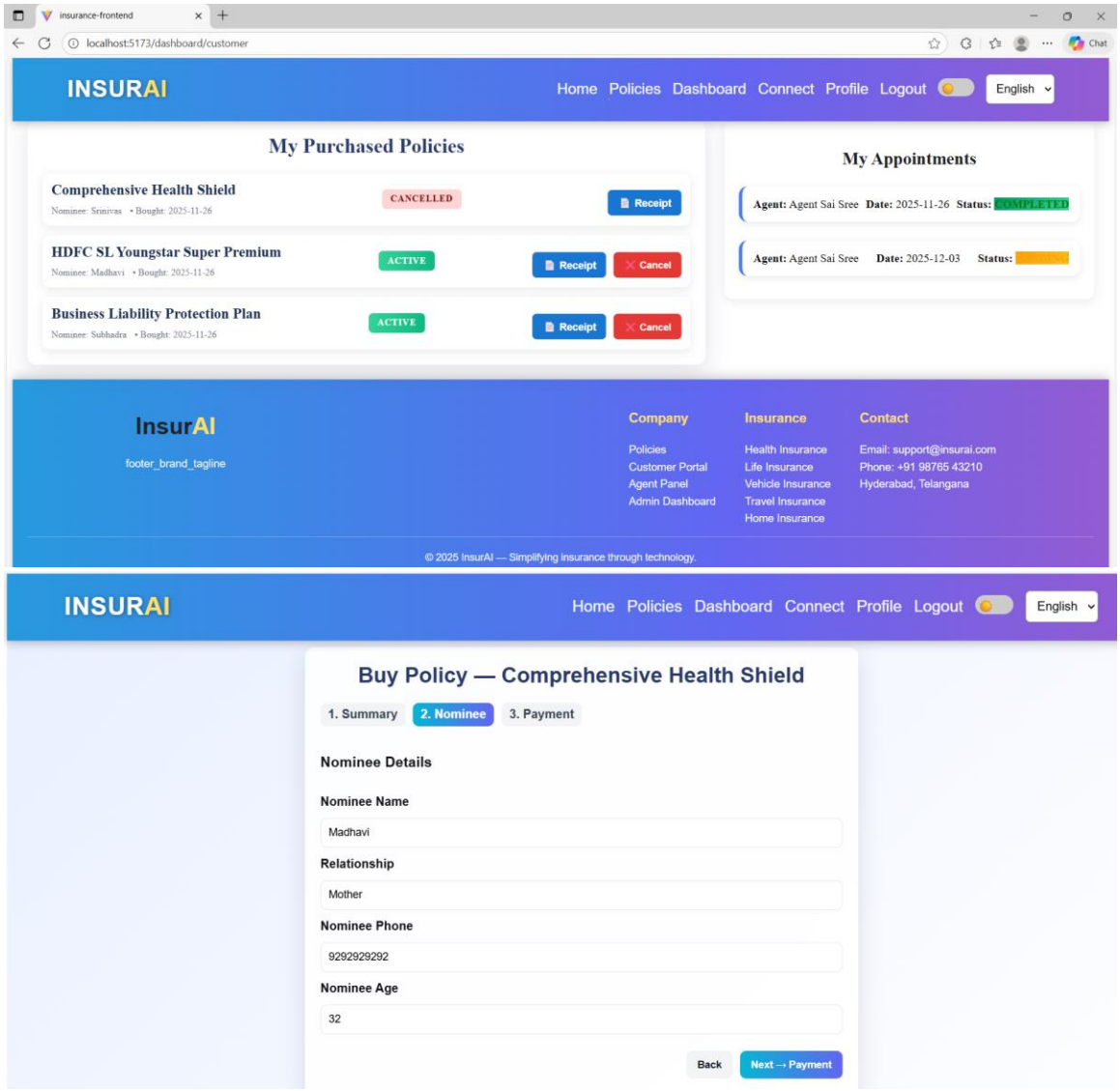

insurance-frontend
localhost:5173/policies
INSURAI
Home Policies Dashboard Connect Profile Logout
English
Available Policies
HEALTH Policies
Buy Now
Comprehensive Health Shield
EDUCATION Policies
Buy Now
Buy Now


insurance-frontend
localhost:5173/appointments/book
INSURAI
Home Policies Dashboard Connect Profile Logout
English
Book Appointment
Choose Agent
Agent Sai Sree (saisreerachapudi@gmail.com)
Select Date
03-12-2025
Select Time
10:00
Reason
Regarding Educational policies
Book Appointment
Company
Insurance
Contact


insurance-frontend
localhost:5173/dashboard/customer
INSURAI
Home Policies Dashboard Connect Profile Logout
English
My Purchased Policies
Comprehensive Health Shield
Nominee: Srinivas • Bought: 2025-11-26
CANCELLED
Receipt
HDFC SL Youngstar Super Premium
Nominee: Madhavi • Bought: 2025-11-26
ACTIVE
Receipt
Cancel
Business Liability Protection Plan
Nominee: Subhadra • Bought: 2025-11-26
ACTIVE
Receipt
Cancel
My Appointments
Agent: Agent Sai Sree Date: 2025-11-26 Status: COMPLETED
Agent: Agent Sai Sree Date: 2025-12-03 Status:
InsurAI
footer_brand_tagline
Company
Policies
Customer Portal
Agent Panel
Admin Dashboard
Insurance
Health Insurance
Life Insurance
Vehicle Insurance
Travel Insurance
Home Insurance
Contact
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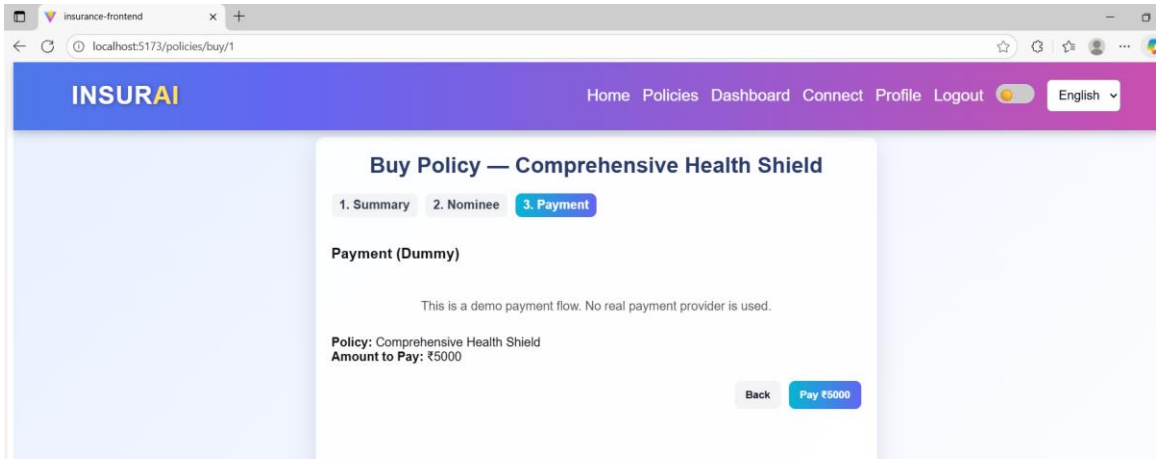
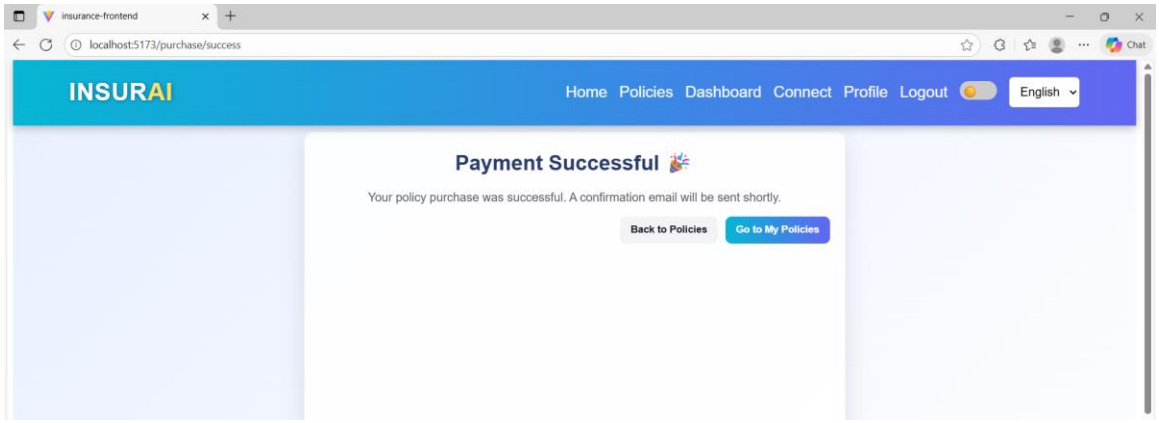
INSURAI
Home Policies Dashboard Connect Profile Logout
English
Buy Policy — Comprehensive Health Shield
1. Summary
2. Nominee
3. Payment
Nominee Details
Nominee Name
Madhavi
Relationship
Mother
Nominee Phone
9292929292
Nominee Age
32
Back
Next → Payment





7. Challenges Faced

Throughout the internship, I faced several technical and non-technical challenges:

Technical Challenges

- Configuring JWT authentication and Spring Security correctly
- Handling multipart form-data for agent document upload
- Designing database tables aligned with future scalability
- Frontend UI/UX improvements without using frameworks like Tailwind
- Connecting React with Spring Boot and resolving CORS issues

Operational Challenges

- Time management across weekly deliverables
- Debugging authentication and role-based access issues
- Understanding basic insurance workflows and terminology

8. Learnings & Skills Acquired

Technical Skills

- Spring Boot REST API development
- JWT Authentication & Spring Security
- MySQL schema design & CRUD operations
- React.js component architecture
- File upload & validation
- File handling and storage management
- Language translation (basic multi-language support)
- API integration using Axios
- Debugging authentication flows
- Version control using Git

Soft Skills

- Problem-solving during debugging
- Time management
- Requirement analysis
- Independent module-wise development
- Clear documentation writing
- Adaptability to new tools and concepts

9. Testimonials from team

This internship gave me practical exposure to developing a complete full-stack application similar to real-world corporate systems. I gained hands-on experience in secure authentication, role-based access, API design, and frontend integration.
Building the InsurAI platform boosted my confidence in backend development and strengthened my understanding of the insurance domain.

10. Conclusion

The Infosys Springboard Virtual Internship was a valuable learning journey where I built a functional insurance automation system using industry-relevant technologies. The project strengthened my backend development skills, introduced me to real-world business requirements, and aligned closely with my goal of becoming a full-stack engineer. The experience will greatly support my academic growth and future career aspirations.

11. Acknowledgements

I would like to thank:

- **Infosys Springboard** for providing this opportunity
- All mentors for their structured learning modules
- Online communities and documentation resources that helped solve implementation challenges