

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

The screenshot shows the Eclipse IDE with the InsurAI backend controller code. The code is in the file `AuthController.java` and defines a REST controller for user authentication and registration. The console output shows the application starting successfully on port 8080.

```

1 package com.example.insurai_backend.controller;
2
3 import com.example.insurai_backend.model.*;
4
5 @RestController
6 @RequestMapping("/api/auth")
7 @CrossOrigin(origins = "${frontend.origin}", allowCredentials = "true")
8 public class AuthController {
9
10     @Autowired private AuthService authService;
11     @Autowired private JwtUtil jwtUtil;
12
13     @PostMapping("/register")
14     public ResponseEntity<> register(@RequestParam("user") User user,
15                                     @RequestParam(value = "document", required = false) MultipartFile document) throws IOException {
16         if (user.getRole() == Role.ROLE_AGENT || (user.getRole() != null && user.getRole().name().equals("ROLE_AGENT"))) {
17             if (document == null || document.isEmpty()) {
18                 return ResponseEntity.badRequest().body(Map.of("message", "Agent registration requires a document upload"));
19             }
20         }
21     }
22 }

```

Console Output:

```

demo: DemoApplication [Spring Boot App] C:\Users\madhu.p2\pools\plugins\org.eclipse.jst.j2ee\openjdk.hotspot.jre.full.win32.x86_64_21.0.8.v20250724-1412\jre\bin\java.exe (18-Nov-2025, 6:23:26 pm elapsed: 0:00:47) [pid: 18016]
2025-11-18T18:24:13.028+05:30 INFO 18016 --- [demo] [ restartedMain] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000489: No JTA platform available (set 'hibernate.
2025-11-18T18:24:13.047+05:30 INFO 18016 --- [demo] [ restartedMain] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence
2025-11-18T18:24:13.226+05:30 WARN 18016 --- [demo] [ restartedMain] jpaBasicConfiguration$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Theref
2025-11-18T18:24:13.258+05:30 WARN 18016 --- [demo] [ restartedMain]
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.
2025-11-18T18:24:13.261+05:30 INFO 18016 --- [demo] [ restartedMain] rsInitializeUserDetailsManagerConfigurer : Global AuthenticationManager configured with UserData
2025-11-18T18:24:13.630+05:30 INFO 18016 --- [demo] [ restartedMain] o.s.b.a.h2.H2ConsoleAutoConfiguration : H2 console available at '/h2-console'. Database avail
2025-11-18T18:24:13.656+05:30 INFO 18016 --- [demo] [ restartedMain] o.s.b.a.o.OptionalLiveReloadServer : LiveReload server is running on port 35729
2025-11-18T18:24:13.659+05:30 INFO 18016 --- [demo] [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path
2025-11-18T18:24:13.659+05:30 INFO 18016 --- [demo] [ restartedMain] c.e.insurai_backend.DemoApplication : Started DemoApplication in 1.887 seconds (process run
2025-11-18T18:24:13.664+05:30 INFO 18016 --- [demo] [ restartedMain] ConditionEvaluationDeltaLoggingListener : Condition evaluation unchanged

```

The screenshot shows the MySQL Workbench interface with the `insurai` database selected. The `users` table is displayed, showing a list of users with their IDs, emails, names, passwords, roles, document paths, and verification status.

id	email	name	password	role	document_path	verified
1	saisareegithub@gmail.com	saisree	\$2a\$10\$E9bkUvXcc/hwFETC2L80InARM2htv...	ROLE_USER	NULL	0
2	saisareegithub@gmail.com	saisree	\$2a\$10\$6YpK7KfnZeGK3KwOwC2OuH8DXgoit...	ROLE_USER	NULL	0
3	saisareegithub@gmail.com	saisree	\$2a\$10\$us40xJnKE9Y8fMBRnVvJOY6HfO5a...	ROLE_USER	NULL	0
4	saisareegithub@gmail.com	saisree	\$2a\$10\$X1V3fGdInPneN8EaxdCOz7x5JelUXt...	ROLE_USER	NULL	0
5	saisareegithub@gmail.com	saisree	\$2a\$10\$9dJ5ru09UJHfM7u8fQ2huPGHE8K5py...	ROLE_AGENT	D:\InsurAI\demo\uploads\1762780340375_Scr...	0
7	saisareegithub@gmail.com	saisree	\$2a\$10\$K6P3fZr8PAwK7BuftY.9mDwnvZU...	ROLE_CUSTOMER	NULL	0
9	saisareegithub@gmail.com	safa	\$2a\$10\$6L9661APhd5S7ZKjYeQ3Q8Mfyp.Z...	ROLE_AGENT	D:\InsurAI\demo\uploads\1762865519345...	0
10	saisreerchapid@gmail.com	Rachapudi	\$2a\$10\$Y1LWw3YTRNh3dsQFPa2dgfOhwSAKcM...	ROLE_AGENT	D:\InsurAI\demo\uploads\1762866207339...	0

The screenshot shows the InsurAI login page. The page has a blue header with the InsurAI logo and navigation links (Company, Insurance, Contact). The main content area has a white box with the text "Welcome Back" and "Login to continue to InsurAI". Below this are input fields for "Email Address" and "Password", and a "Login" button. There are also links for "Login" and "Register" in the top right corner.

INSURAI

Login Register

Welcome Back

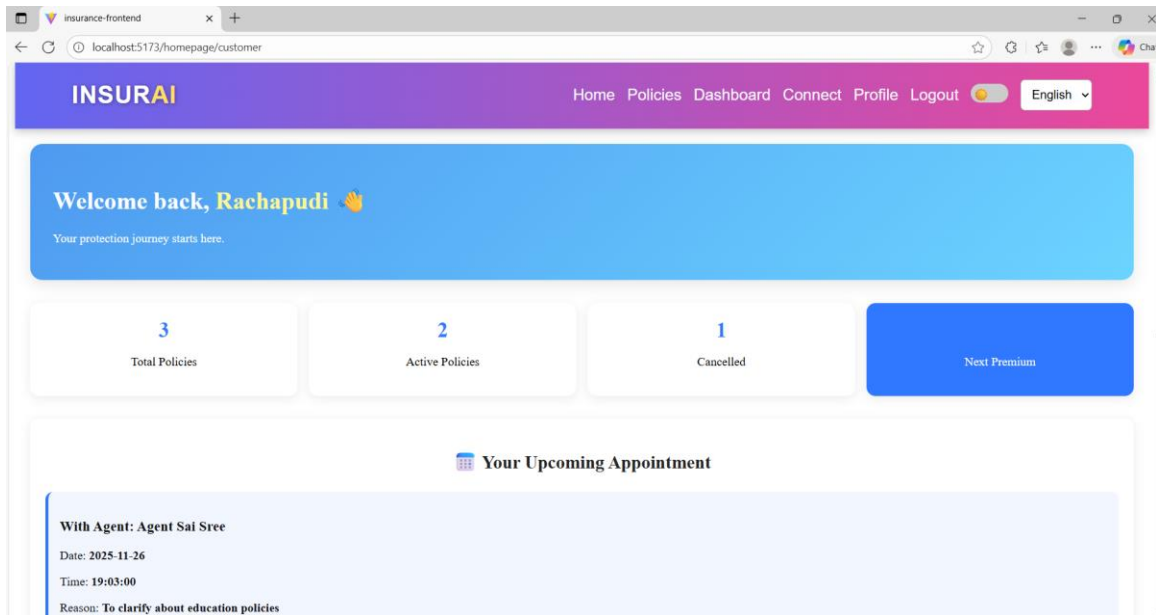
Login to continue to InsurAI

Email Address

Password

Login

Company Insurance Contact



The screenshot shows the customer dashboard of the INSURAI application. The header is purple with the INSURAI logo and navigation links: Home, Policies, Dashboard, Connect, Profile, Logout, a toggle switch, and a language dropdown set to English. The main content area has a blue gradient banner with the text "Welcome back, Rachapudi 🙌" and "Your protection journey starts here." Below this are four white cards: "Total Policies" with the number 3, "Active Policies" with the number 2, "Cancelled" with the number 1, and a blue "Next Premium" button. A section titled "Your Upcoming Appointment" shows details for an appointment with Agent Sai Sree on 2025-11-26 at 19:03:00, with the reason "To clarify about education policies".

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

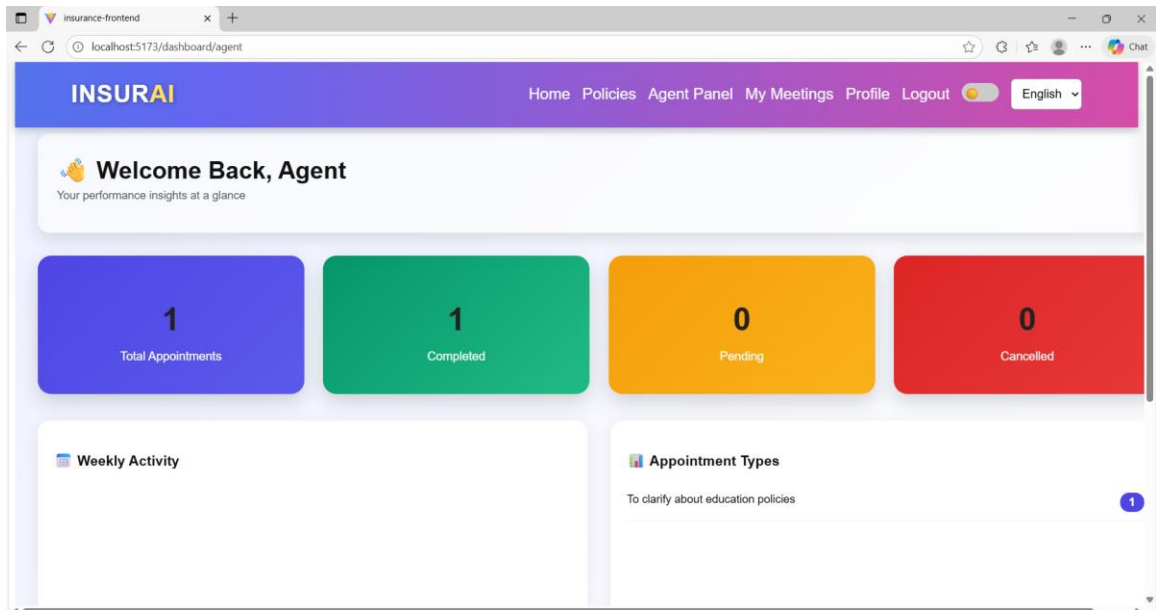
Your Upcoming Appointment

With Agent: Agent Sai Sree

Date: 2025-11-26

Time: 19:03:00

Reason: To clarify about education policies



The screenshot shows the agent dashboard of the INSURAI application. The header is purple with the INSURAI logo and navigation links: Home, Policies, Agent Panel, My Meetings, Profile, Logout, a toggle switch, and a language dropdown set to English. The main content area has a white banner with the text "Welcome Back, Agent" and "Your performance insights at a glance". Below this are four colored cards: "Total Appointments" (blue, 1), "Completed" (green, 1), "Pending" (orange, 0), and "Cancelled" (red, 0). A section titled "Weekly Activity" is partially visible. A section titled "Appointment Types" shows a list of appointments, with the first one being "To clarify about education policies" and having a status of 1.

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

The image shows two screenshots of a web application for 'INSURAI'.

Top Screenshot: Admin Dashboard

The dashboard is titled 'admin_dashboard' and features a navigation bar with links: Home, Policies, Add Policy, Requests, Logout, a language toggle (English), and a chat icon. The main content area displays three summary cards:

- Total Users:** 6
- Pending Agent Requests:** 0
- Total Policies:** 4

Below these cards is a section titled 'Recently Added Policies' showing three policy cards:

- 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

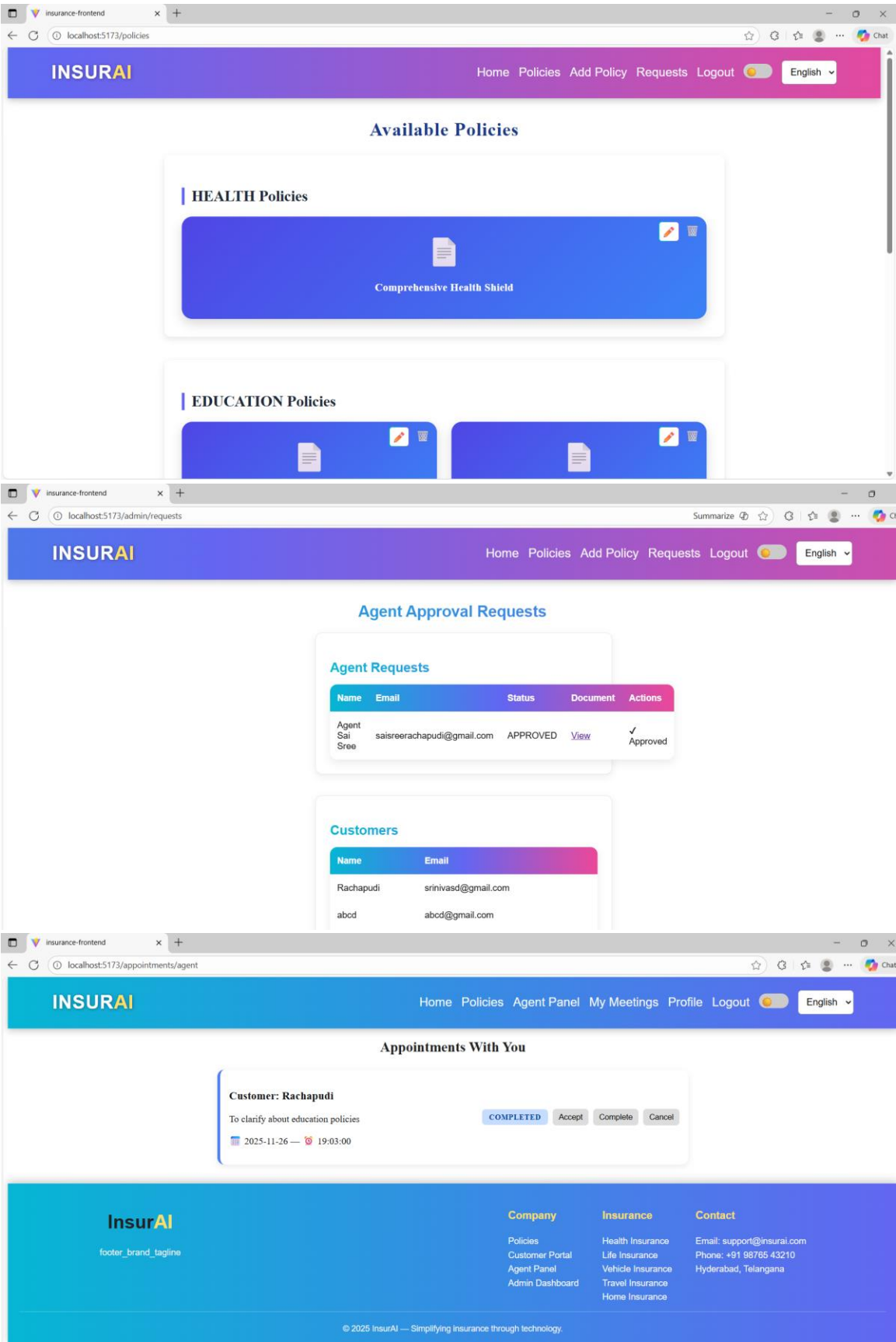
The footer contains the 'InsurAI' logo with the tagline 'footer_brand_tagline', a copyright notice '© 2025 InsurAI — Simplifying Insurance through technology.', and contact information:

- 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

Bottom Screenshot: Add New Policy Form

The form is titled 'Add New Policy' and contains the following fields:

- 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:** Select Policy Type



The image displays two screenshots of the InsurAI web application. The top screenshot shows the 'My Profile' page, and the bottom screenshot shows the 'My Purchased Policies' page.

My Profile

Name	Agent Sai Sree
Email	saisreerachapudi@gmail.com
Phone	989898989
Address	Nandyal
Role	AGENT

[Edit Profile](#) [Change Password](#)

My Purchased Policies

Policy Name	Status	Action
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

Contact

Email: support@insurai.com
Phone: +91 98765 43210
Hyderabad, Telangana

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The image displays two screenshots of a web application for 'INSURAI'.

Top Screenshot: Available Policies

The browser address bar shows `localhost:5173/policies`. The navigation bar includes links: Home, Policies, Dashboard, Connect, Profile, Logout, and a language selector set to English. The main heading is 'Available Policies'.

Under 'HEALTH Policies', there is a blue card for 'Comprehensive Health Shield' with a 'Buy Now' button.

Under 'EDUCATION Policies', there are two blue cards, each with a 'Buy Now' button.

Bottom Screenshot: Book Appointment

The browser address bar shows `localhost:5173/appointments/book`. The navigation bar is identical to the top screenshot.

The main heading is 'Book Appointment'. The form contains the following fields:

- Choose Agent:** A dropdown menu showing 'Agent Sai Sree (saisreerachapudi@gmail.com)'.
- Select Date:** A date picker showing '03-12-2025'.
- Select Time:** A time picker showing '10:00'.
- Reason:** A text area containing 'Regarding Educational policies'.
- Book Appointment:** A blue button at the bottom of the form.

The footer of the website includes the 'INSURAI' logo and links for 'Company', 'Insurance', and 'Contact'.

insurance-frontend

localhost:5173/dashboard/customer

Chat

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: CONFIRMED

Agent: Agent Sai Sree

Date: 2025-12-03

Status: PENDING

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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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

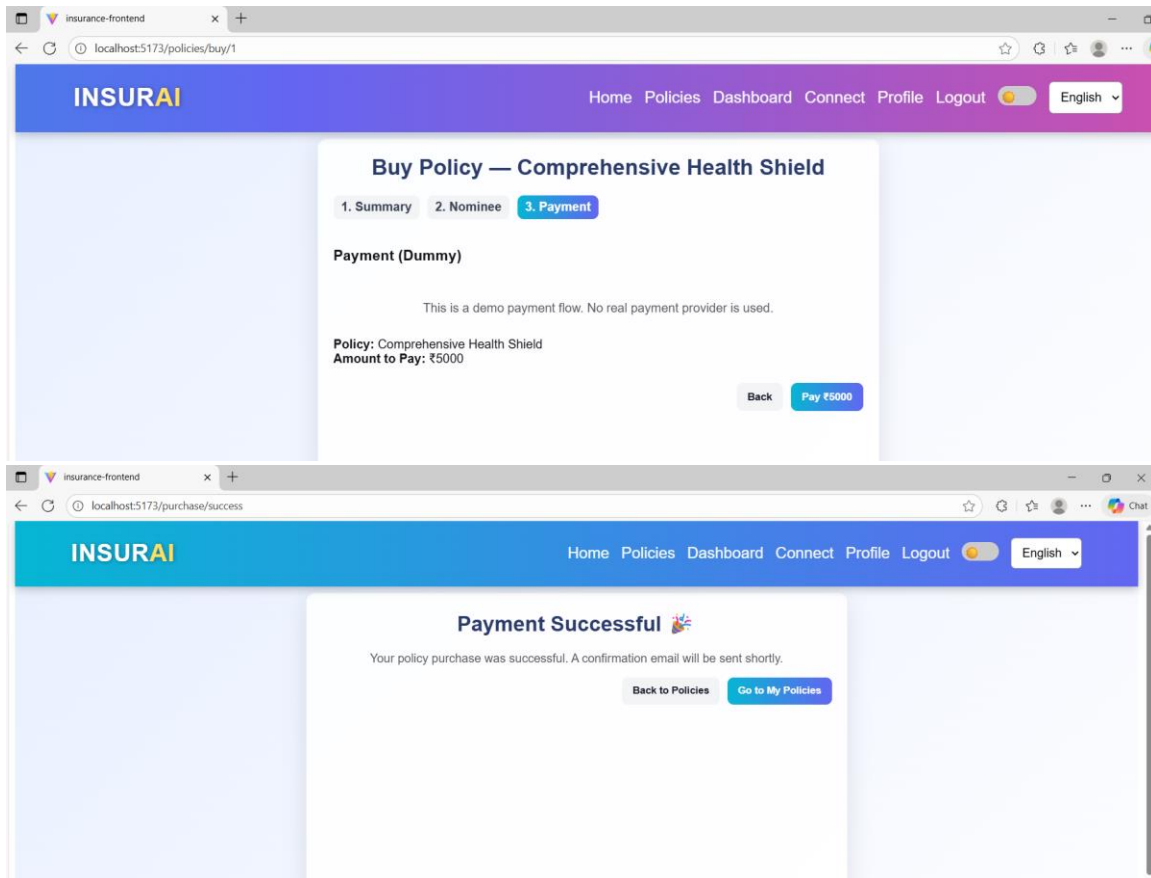
Nominee Age

32

Back

Next → Payment

pg. 11



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