

MILESTONE-4

# INSURAI-CORPORATE POLICY AUTOMATION AND INTELLIGENCE SYSTEM

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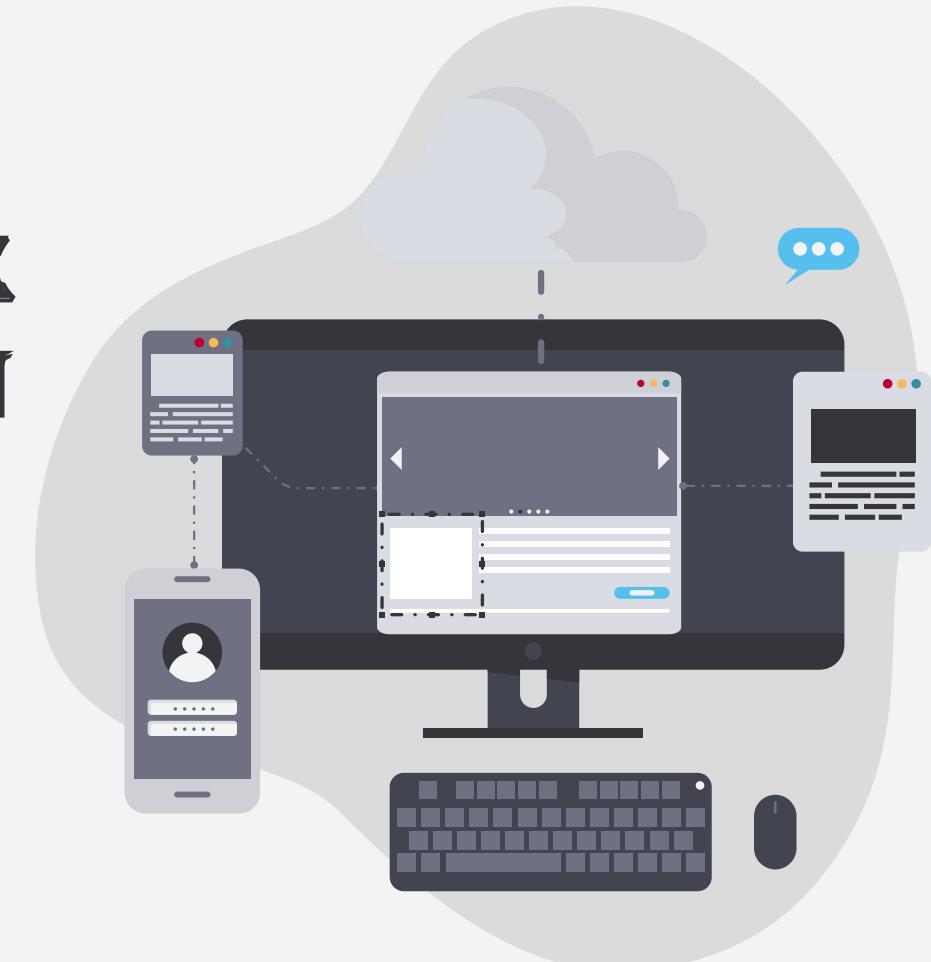
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# PROJECT OVERVIEW

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.

The screenshot shows the InsurAI website's "About" page. The top navigation bar includes links for About, Features, Workflow, Why Choose, Vision, Contact, and a Dark mode toggle. The main content area has a teal header with the title "About InsurAI". Below it is a paragraph describing the platform's mission to revolutionize insurance management through AI and machine learning. A summary statement follows, highlighting how InsurAI bridges the gap between traditional insurance processes and digital innovation. To the right, there are four white cards on a red background, each featuring an icon and a descriptive text: "90% faster approvals" with a rocket ship icon, "Smart automation" with a target icon, "Enterprise-grade security" with a lock icon, and "Grows with your business" with a growth chart icon.

**About InsurAI**

InsurAI is a cutting-edge insurance intelligence platform that leverages artificial intelligence and machine learning to revolutionize corporate insurance management. Our platform combines predictive analytics, automated workflows, and intelligent fraud detection to deliver unprecedented efficiency and accuracy.

Designed for modern enterprises, InsurAI bridges the gap between traditional insurance processes and digital innovation, ensuring that every stakeholder — from employees to executives — benefits from transparent, intelligent, and lightning-fast insurance operations.

90% faster approvals

Smart automation

Enterprise-grade security

Grows with your business



# KEY HIGHLIGHTS

**01**

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

**02**

**MySQL database**  
**For structured storage**

**03**

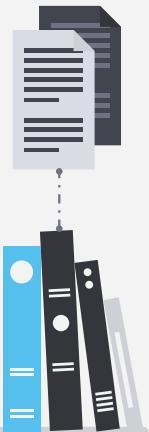
**Scalable design**  
**For large enterprises**  
**with thousands of**  
**employees**

**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**



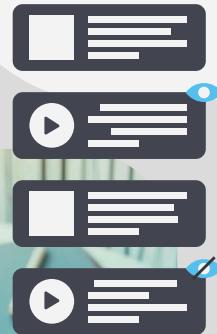
# **PROBLEM STATEMENT**

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.





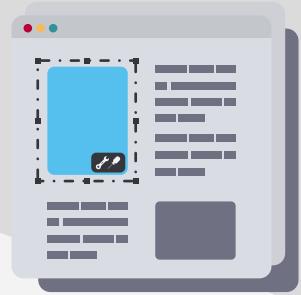
# SCOPE

**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.



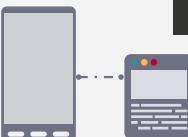
### AI & Analytics

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

## System Users & Roles

The dashboard displays five user roles with corresponding icons:

- Employee**: User icon with a lock.
- Agent**: User icon with a headset.
- HR Admin**: User icon with a briefcase.
- System Admin**: A shield icon.
- AI & Analytics Layer**: A circuit board icon.

**Employee**  
Register, login, view policies, submit claims, upload documents, track status.

**Agent**  
Manage employee queries, assist with claims, update availability.

**HR Admin**  
Manage employees, approve/reject claims, manage policies, generate reports.

**System Admin**  
Manage all roles, configure settings and tax rules, monitor fraud detection, oversee security.

**AI & Analytics Layer**  
Automated fraud checks, predictive insights, real-time tracking, and alerts.

**Select Your Role**  
Choose how you want to access the InsurAI system

**Employee**  
Submit and track insurance claims  
[Continue →](#)

**Admin**  
Manage users, policies and system  
[Continue →](#)

**HR**  
Verify claims and manage employees  
[Continue →](#)

**Agent**  
Assist customers and handle queries  
[Continue →](#)

[← Back to Home](#)



# 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

A screenshot of the InsurAI Platform login page. The page has a white background with a central form. It features a "Welcome Back" header with a right-pointing arrow icon. Below it is a sub-header "Login to your InsurAI account". The form includes fields for "Email Address" (containing "22501a4401@pvsit.ac.in") and "Password" (containing a masked password). There is also a "Forgot Password?" link and a "Sign In to Dashboard" button.A screenshot of the InsurAI Platform registration page. The page has a green header with the InsurAI logo and a "Join Our AI-Powered Insurance Platform" message. To the right, there is a testimonial box with a 5-star rating and the text: "Rated 4.9 / 5 by 10,000+ Employees" and "InsurAI made insurance management effortless and transparent. The AI features save us hours every week." Below the testimonial is a "Create Account" section with fields for "Employee ID" (containing "22501a4401@pvsit.ac.in"), "Full Name" (placeholder "Enter your full name"), "Email Address" (placeholder "Enter your email"), "Password" (containing a masked password), and a "Create Account" button. At the bottom, there are links for "Already have an account? Sign In to Your Account" and a footer note about "Enterprise Security + GDPR Compliant".

# EMPLOYEE HR DASHBOARD, INSURANCE POLICIES

localhost:5173/#/hr/dashboard

## InsurAI HR Portal

HR Management Portal v2.0

- Dashboard
- Claim Approval
- Policy Management (2)
- Employee Portal (7)
- Fraud Monitoring
- Analytics
- Notifications (2)

System Online v2.0.1 • Enterprise Edition

### Enterprise HR Dashboard

Corporate Insurance Management Portal Enterprise Edition

Friday, 9 January 2026 Last updated: 2:35:23 am

#### Key Performance Indicators

- Total Coverage ₹30.00 L Active policies coverage
- Pending Amount ₹0 0 claims pending
- Fraud Risk 50% Risk assessment score
- Approval Rate 100% Claim processing efficiency

#### Quick Actions

Manage Claims 0 pending Policy Management 2 active Employee Portal 7 active

Analytics View reports Fraud Monitoring Risk management Export Data CSV/PDF reports

#### System Status

Claims API Operational Employee Database Operational

## InsurAI Employee Portal

Employee Insurance Suite v2.0

Anshuman Welcome Logout

### Your Insurance Policies

2 Active Policies ₹850 Total Monthly Premium

Coverage Amount (₹) 20 Policy Type Health Calculate Estimated Monthly Premium ₹2,500

| HEALTH-POLICY     |                      | LIFE INSURANCE    |                      |
|-------------------|----------------------|-------------------|----------------------|
| Provider:         | INSURAI              | Provider:         | INSURAI              |
| Coverage:         | ₹10,00,000           | Coverage:         | ₹20,00,000           |
| Premium:          | ₹350/month           | Premium:          | ₹500/month           |
| Renewal:          | 2027-01-01           | Renewal:          | 2026-01-01           |
| Covered Benefits: | No details available | Covered Benefits: | No details available |

[View Details](#) [Download](#) [View Details](#) [Download](#)

# ADMIN LOGIN, AGENT LOGIN, HR LOGIN

localhost:5173/#/admin/login

**InsurAI Admin**

## System Administrator Portal

Access the comprehensive admin dashboard to manage users, monitor system performance, and configure enterprise settings.

User Management & Permissions  
System Configuration  
Advanced Analytics & Reports

Enterprise-grade security and monitoring

**Admin Login**

Secure access to InsurAI dashboard

Email Address: agenttaasha@insurai.com

Password: .....  
Access Admin Dashboard

System administrator access only  
Forgot Password? | Back to Portal

Secure Admin Access • 2FA Protected

localhost:5173/#/hr/login

**InsurAI HR**

## HR Management Portal

Access your comprehensive HR dashboard to manage employees, track performance, and oversee organizational operations.

Employee Database Management  
Performance Analytics  
Secure Access Control

Enterprise HR Management System

**HR Login**

Access your HR dashboard

Email Address: hr@insurai.com

Password: .....  
Access HR Dashboard

Secure HR Portal • Confidential Access  
Back to Home

localhost:5173/#/agent/login

**InsurAI Agents**

## Agent Portal Access

Access your dedicated agent dashboard to manage policies, clients, and commissions with AI-powered insights.

Client Management Tools  
Commission Tracking  
Policy Analytics

Trusted by 5,000+ insurance agents nationwide

**Agent Login**

Access your agent dashboard

Email Address: agenttaasha@insurai.com

Password: .....  
Access Agent Dashboard

Need agent assistance?  
Register New Agent | Contact Admin

Secure Agent Portal • Commission Protected



## 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.

The screenshot shows two code files in a Java IDE:

**AuthController.java**

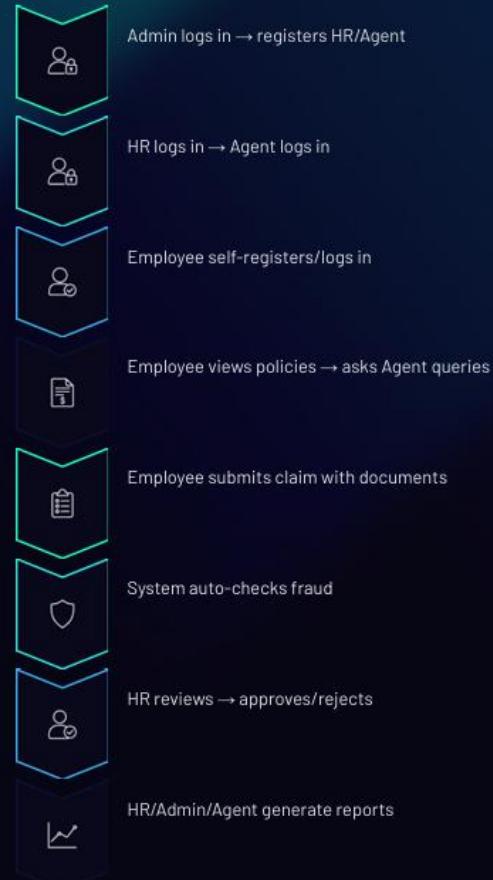
```
1 package com.insurai.insurai_backend.controller;
2
3 import java.time.LocalDateTime;
4
5 import org.springframework.http.ResponseEntity;
6 import org.springframework.security.core.userdetails.UserDetails;
7 import org.springframework.web.bind.annotation.*;
8
9 import com.insurai.insurai_backend.model.JwtUtil;
10 import com.insurai.insurai_backend.model.AuditLogService;
11 import com.insurai.insurai_backend.model.Employee;
12 import com.insurai.insurai_backend.model.EmployeeRepository;
13 import com.insurai.insurai_backend.model.PasswordEncoder;
14 import com.insurai.insurai_backend.model.RegisterRequest;
15 import com.insurai.insurai_backend.model.Role;
16 import com.insurai.insurai_backend.model.User;
17 import com.insurai.insurai_backend.service.EmployeeService;
18
19 @RestController
20 @RequestMapping("/auth")
21 public class AuthController {
22
23     private final EmployeeService employeeService;
24     private final EmployeeRepository employeeRepository;
25     private final PasswordEncoder passwordEncoder;
26     private final JwtUtil jwtUtil;
27     private final AuditLogService auditLogService;
28
29     // ===== Employee Registration =====
30     @PostMapping("register")
31     public ResponseEntity<User> register(@RequestBody RegisterRequest request) {
32         if (employeeRepository.findByEmail(request.getEmail()).isPresent()) {
33             return ResponseEntity.badRequest().body("Email already exists");
34         }
35         if (employeeRepository.findById(request.getEmployeeId()).isPresent()) {
36             return ResponseEntity.badRequest().body("Employee ID already exists");
37         }
38
39         Employee emp = new Employee();
40         emp.setEmployeeId(request.getEmployeeId());
41         emp.setName(request.getName());
42         emp.setEmail(request.getEmail());
43         emp.setPassword(passwordEncoder.encode(request.getPassword()));
44         emp.setRole(Role.EMPLOYEE);
45
46         employeeService.register(emp);
47
48     }
49
50     // ===== Admin login =====
51     @GetMapping("admin")
52     public boolean loginAdmin(String email, String password) {
53         return ADMIN_EMAIL.equals(email) && ADMIN_PASSWORD.equals(password);
54     }
55
56     public String getAdminName(String email) {
57         return ADMIN_EMAIL.equals(email) ? "Admin" : null;
58     }
59
60     public String getAdminRole() {
61         return "ADMIN";
62     }
63 }
```

**AdminService.java**

```
1 package com.insurai.insurai_backend.service;
2
3 import org.springframework.beans.factory.annotation.Autowired;
4
5 @Service
6 public class AdminService {
7
8     private static final String ADMIN_EMAIL = "admin@insurai.com";
9     private static final String ADMIN_PASSWORD = "Admin@123";
10
11     @Autowired
12     private AgentRepository agentRepository;
13
14     @Autowired
15     private HrRepository hrRepository;
16
17     @Autowired
18     private PasswordEncoder passwordEncoder;
19
20     @Autowired
21     private JwtUtil jwtUtil;
22
23     // ===== Admin login =====
24     public boolean loginAdmin(String email, String password) {
25         return ADMIN_EMAIL.equals(email) && ADMIN_PASSWORD.equals(password);
26     }
27
28     public String getAdminName(String email) {
29         return ADMIN_EMAIL.equals(email) ? "Admin" : null;
30     }
31
32     public String getAdminRole() {
33         return "ADMIN";
34     }
35 }
```



# Workflow Example



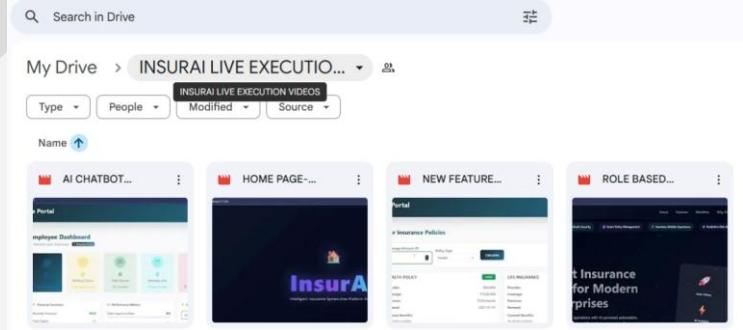
# GITHUB AND GOOGLE DRIVE LINK



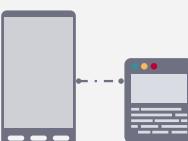
Drive

link:[https://drive.google.com/drive/folders/1PpRvgcAbskYgv3I545NkfslyLUSdWW0t?usp=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>



The screenshot shows the GitHub repository page for "InsurAI-Project" (https://github.com/A-N-A-N-Y-A-25/InsurAI-Project). The repository is private. It contains several branches, including "main", "Milestone-1", "Milestone-2", "Milestone-3", "InsurAI-backend", "InsurAI-fronted", and "InsurAI-Corporate-Policy-Automation-and-Intelligence-System". The repository has 3 commits, 0 stars, 0 forks, and 0 releases. The README file describes the project as a corporate insurance management system built using React (frontend) and Spring Boot (backend) with AI integration.



# 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!**