Java-InsurAI: Corporate Policy Automation & Intelligence System

AI-Powered Voice Recognition System for Automated Policy Management and Customer Service

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Introduction

Project Overview:
Java-InsurAI is an AI-driven corporate insurance automation platform designed to simplify and streamline policy management. It integrates intelligent voice recognition and scheduling capabilities to enhance customer-agent interaction and operational efficiency.

Objectives:

- Automate the end-to-end process of corporate policy management.
- Provide users with seamless appointment scheduling and policy tracking.
- Use AI and voice recognition to handle customer queries efficiently.
- Offer a secure environment with authentication using JWT tokens.

Problem Statement

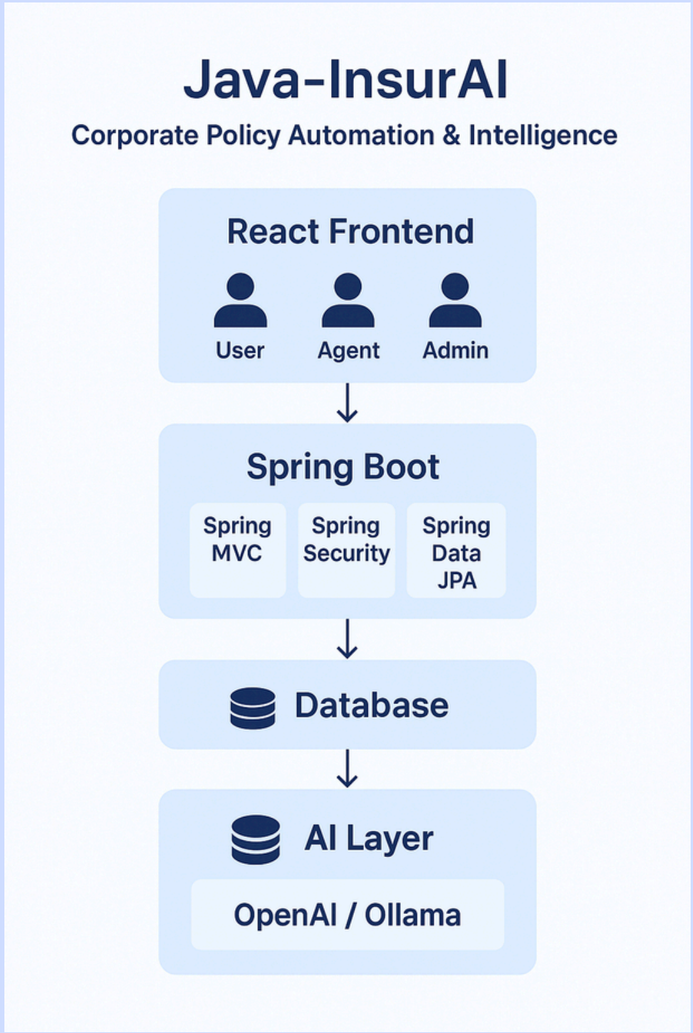
Challenges Identified:

- Manual policy handling processes cause inefficiency and delays.
- Lack of proper communication channels between customers and agents.
- Absence of AI-based assistance results in slow query resolution.

Solution Domain

- AI-powered voice recognition for query resolution.
- Automated appointment and plan management.
- Real-time agent scheduling and tracking.
- Enhanced customer and agent experience via smart dashboards.

System Architecture Diagram



Technology Stack

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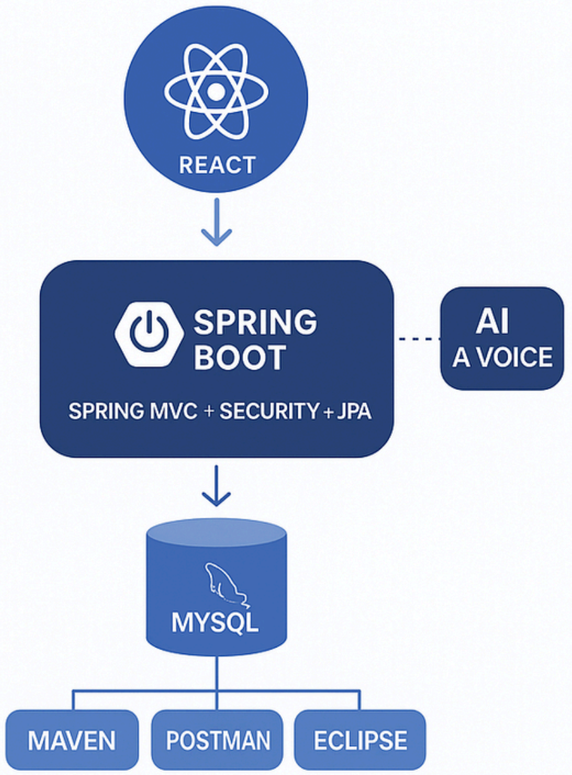
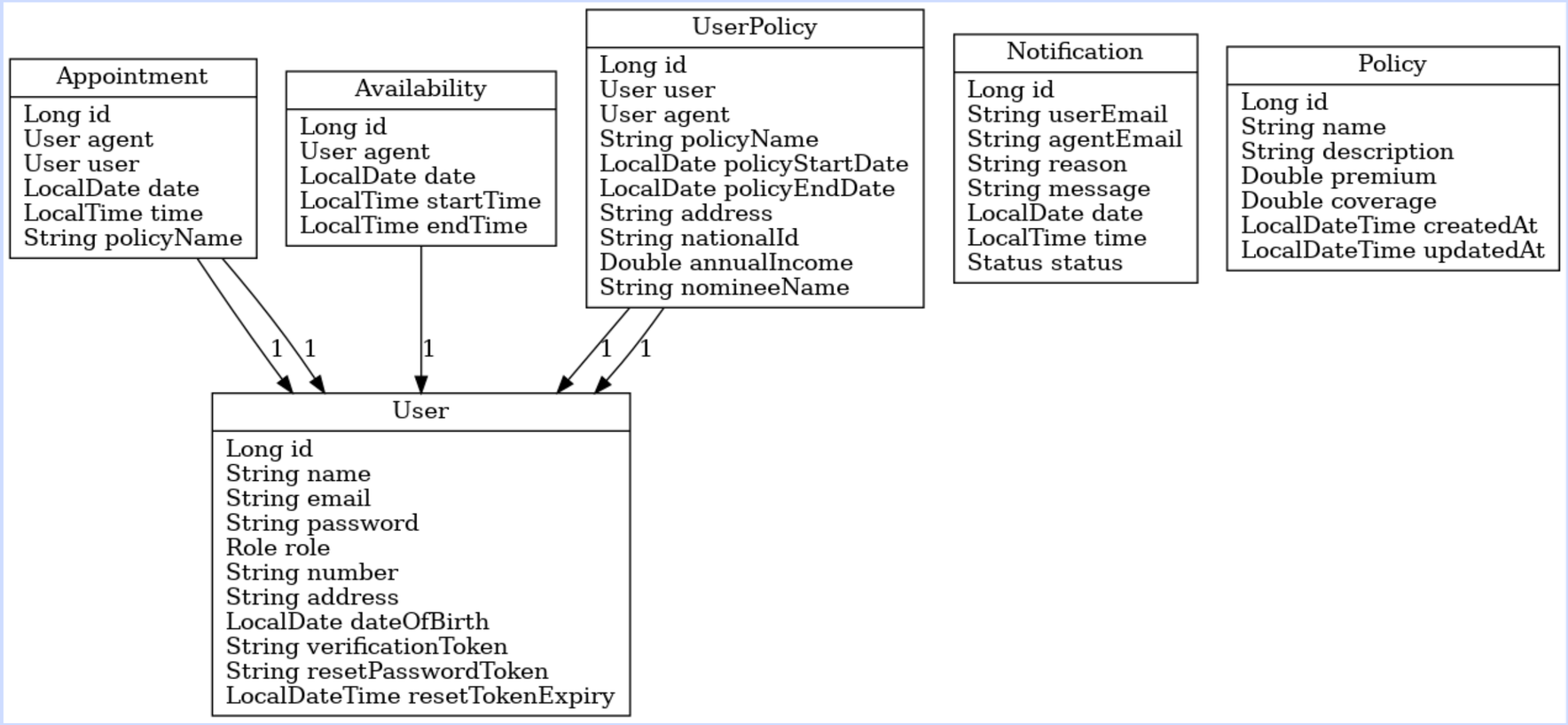
Layer	Technologies
Frontend	React
Backend	Spring Boot (Spring MVC, Spring Secutiy)
Database	MySQL
AI & Voice	OpenAI
Tools	Maven, Postman, Eclipse



Class diagram

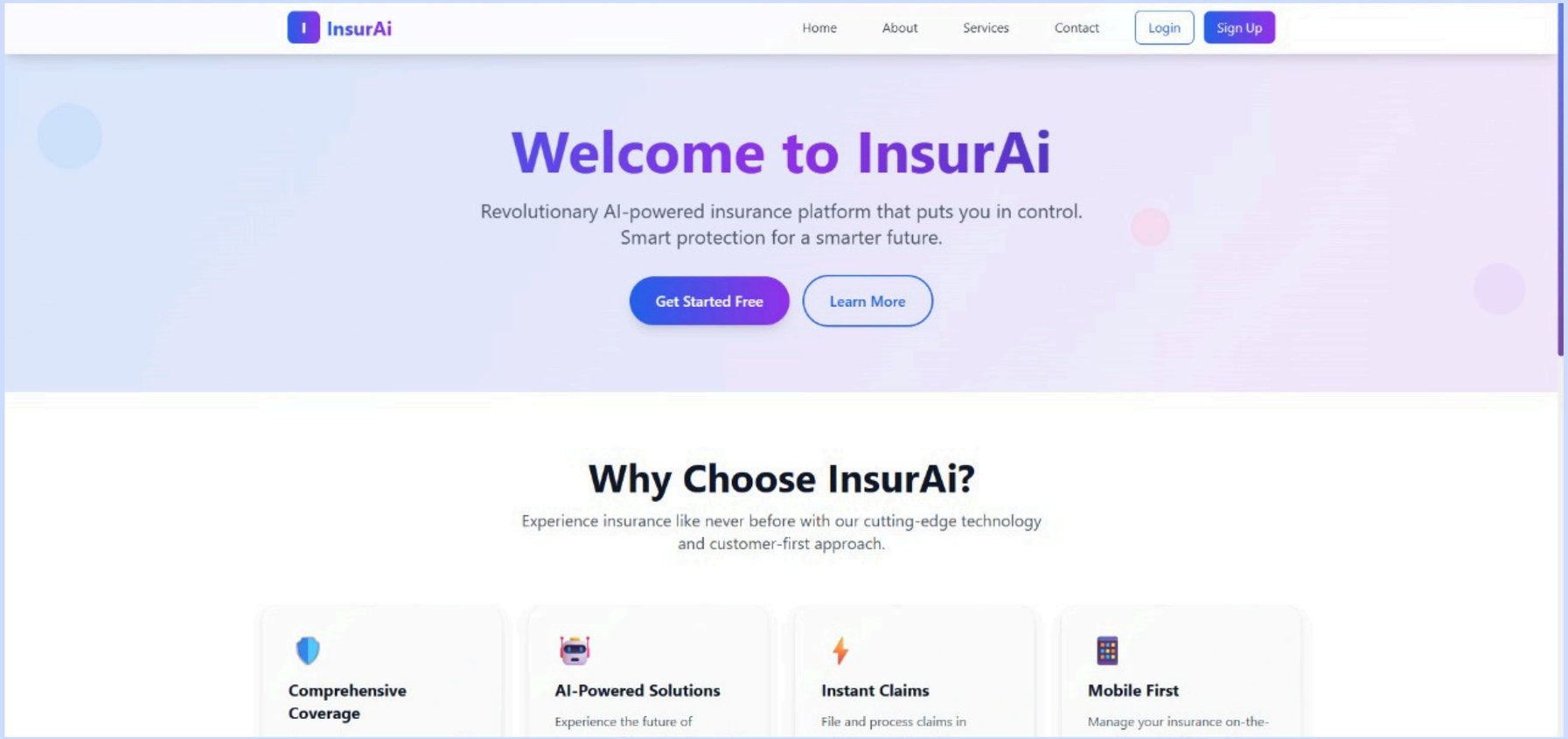


Modules Overview

The Java-InsurAI Corporate Policy Application consists of the following key modules:

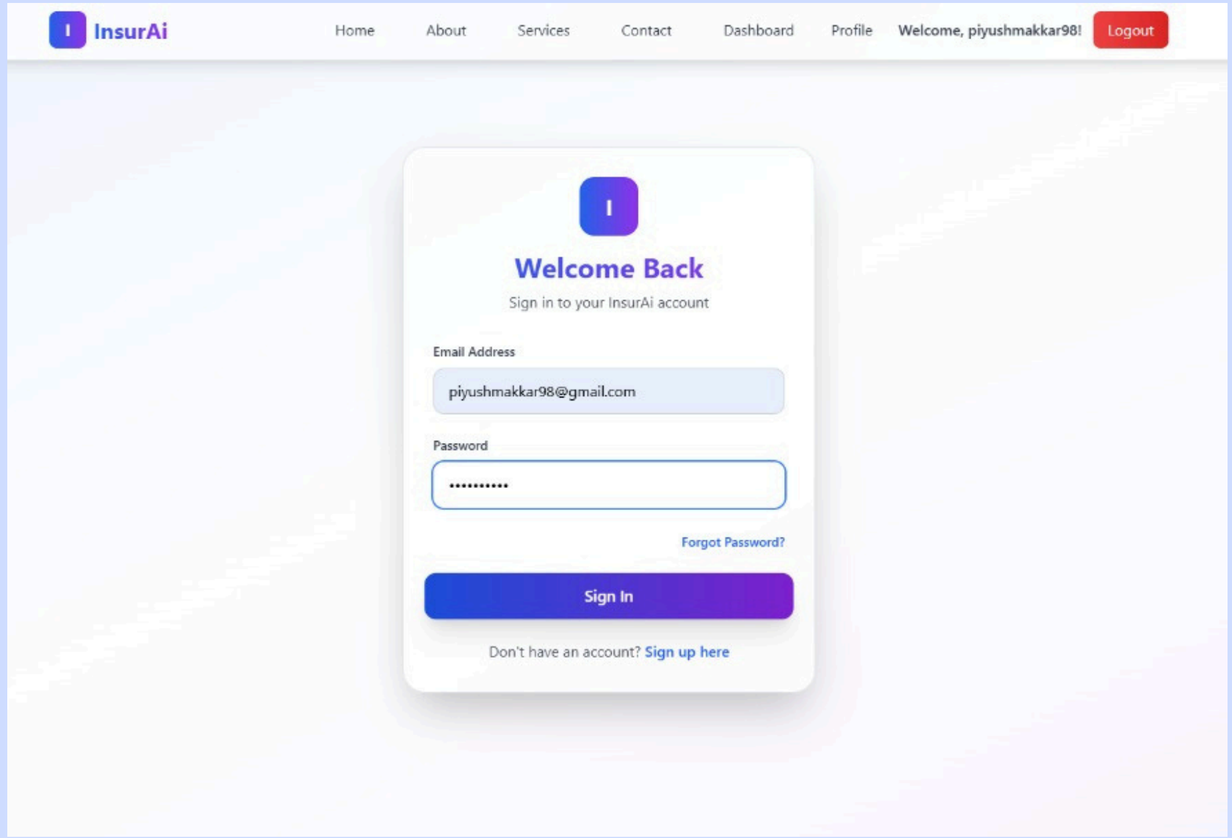
1. Authentication (JWT)
2. Voice Recognition
3. Appointment Scheduling
4. Agent Availability
5. Plan Management
6. Notification System
7. Admin Dashboard

Module Implementation
1. User Authentication & JWT



Description:

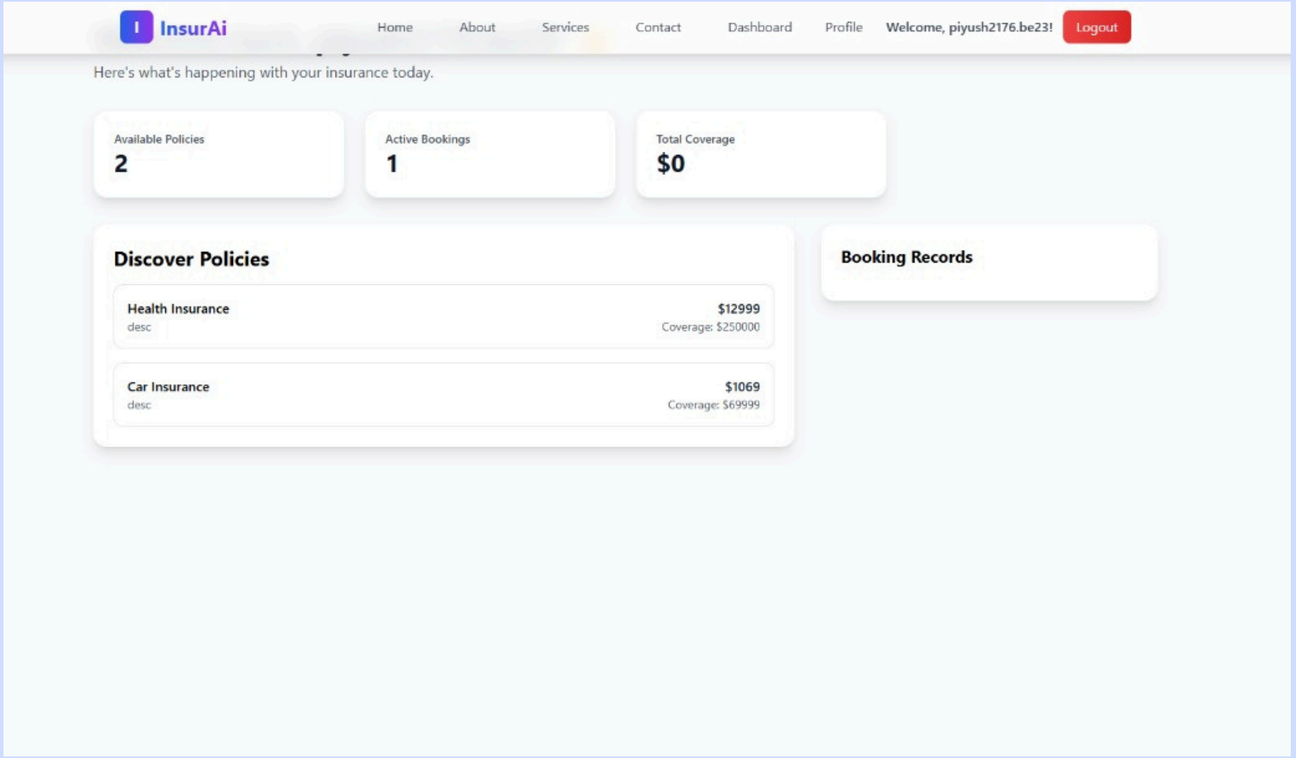
- Handles user login, registration, and secure access using JSON Web Tokens.
- Includes workflow and UI screenshots demonstrating implementation.



2. Appointment Scheduling Interface

Description:

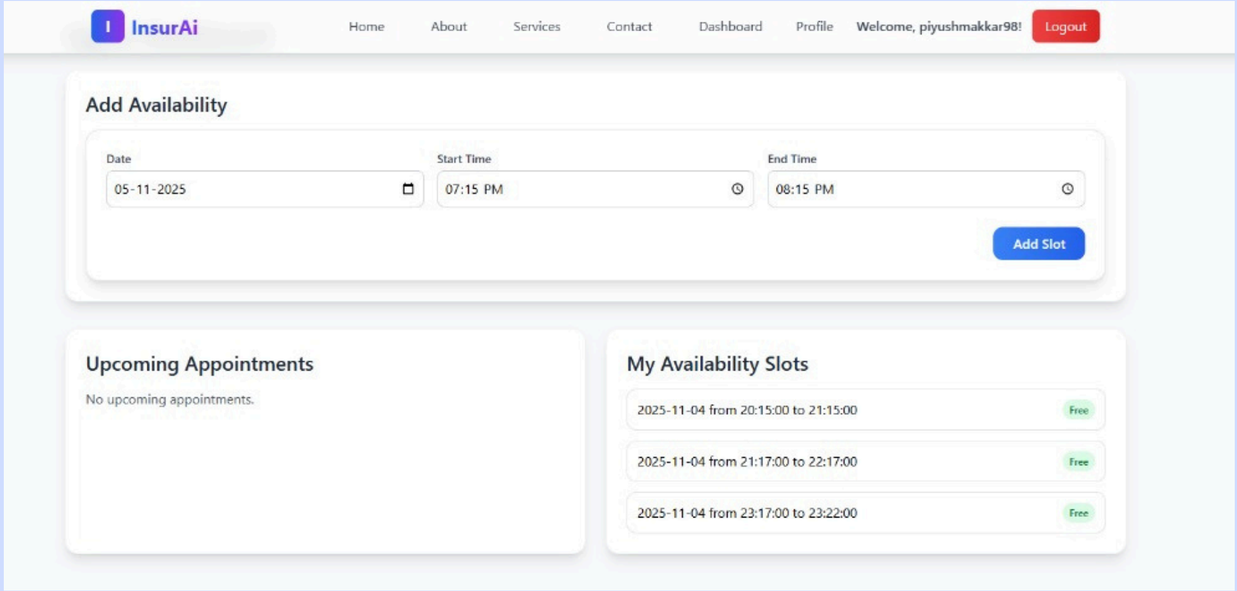
- Allows users to book, view, and manage appointments with agents.
- Includes workflow and UI screenshots demonstrating implementation.

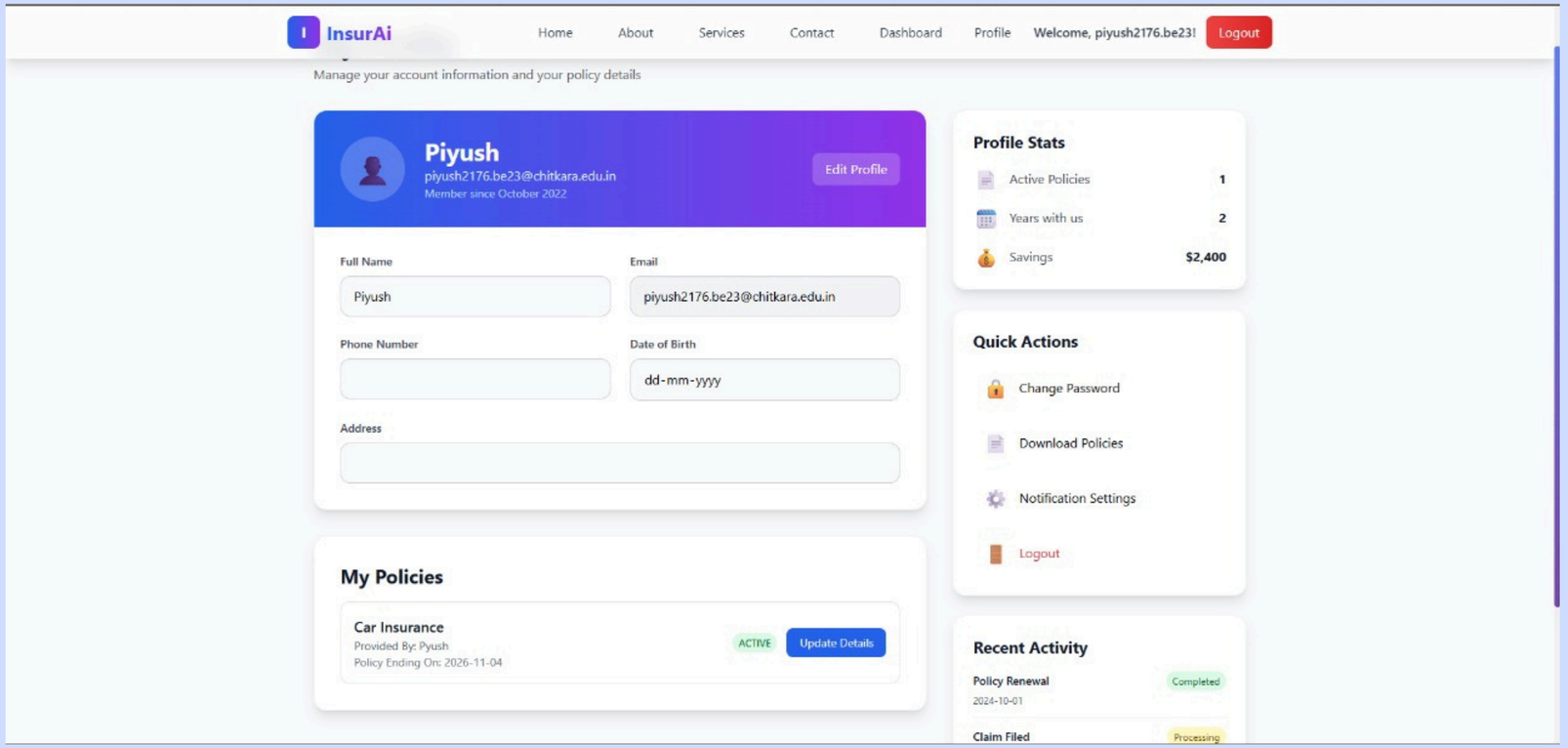


3. Agent Management

Description:

- Enables admins to track and manage agent details, availability, and performance.
- Includes workflow and UI screenshots demonstrating implementation.




InsurAi
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About
Services
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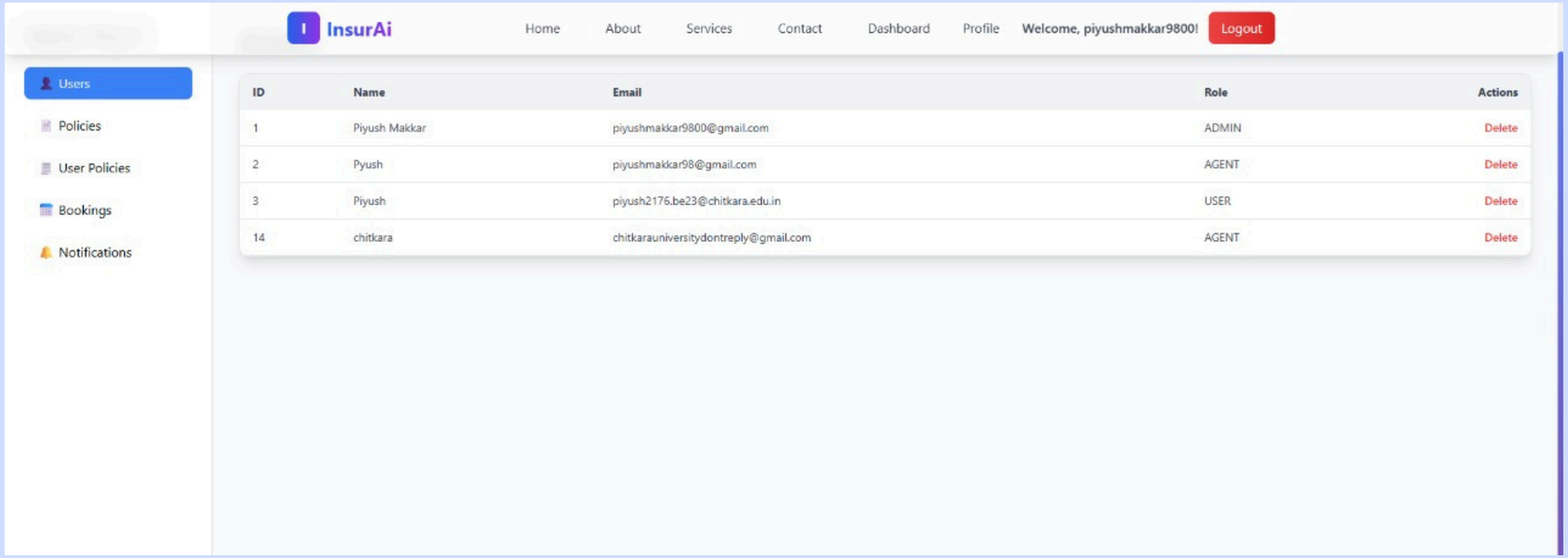
Dashboard
Profile
Welcome, piyush2176.be23!
Logout
Manage your account information and your policy details
Piyush
piyush2176.be23@chitkara.edu.in
Member since October 2022
Edit Profile
Full Name
Piyush
Email
piyush2176.be23@chitkara.edu.in
Phone Number
Date of Birth
dd-mm-yyyy
Address
My Policies
Car Insurance
Provided By: Pyush
Policy Ending On: 2026-11-04
ACTIVE
Update Details
Profile Stats
Active Policies
1
Years with us
2
Savings
$2,400
Quick Actions
Change Password
Download Policies
Notification Settings
Logout
Recent Activity
Policy Renewal
2024-10-01
Completed
Claim Filed
Processing

5. Notification & Admin Dashboard

Description:

- Displays key metrics, notifications, and activity reports for users and admins.
- Includes workflow and UI screenshots demonstrating implementation.



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