

SUPPORT TICKET ASSIGNMENT - ASSIGN USERS BASED ON HISTORICAL PATTERNS ALONG WITH SOP RULES.

A Spring Boot-based web application for managing, tracking, and resolving support tickets with role-based access for Customers, Agents, and Admins.

Overview

Support Ticket Assignment is a web application designed to streamline support ticket management. It allows:

- **Customers** to submit and track tickets
- **Agents** to resolve tickets based on their expertise
- **Admins** to manage users and oversee ticket activity

The application features a modern, responsive UI with role-based authentication and authorization.

Features

- **User Registration and Login**

Users can register as:

- **Customer**
- **Agent** (must specify their expertise like login, payment, etc.)
- **Admin**
- **Role-Based Access:**
 - **Customers:** Create and view their tickets.
 - **Agents:** View and resolve tickets matching their expertise.
 - **Admins:** Manage users and oversee all tickets.
- **Ticket Management:**

Create, assign, update, and resolve support tickets through the web interface.

Technologies Used

- **Backend:** Spring Boot, Spring Security, Spring Data JPA
- **Frontend:** Thymeleaf, HTML, CSS
- **Database:** H2 (in-memory) or MySQL
- **Build Tool:** Maven
- **Java Version:** 17 or later

Access the Application

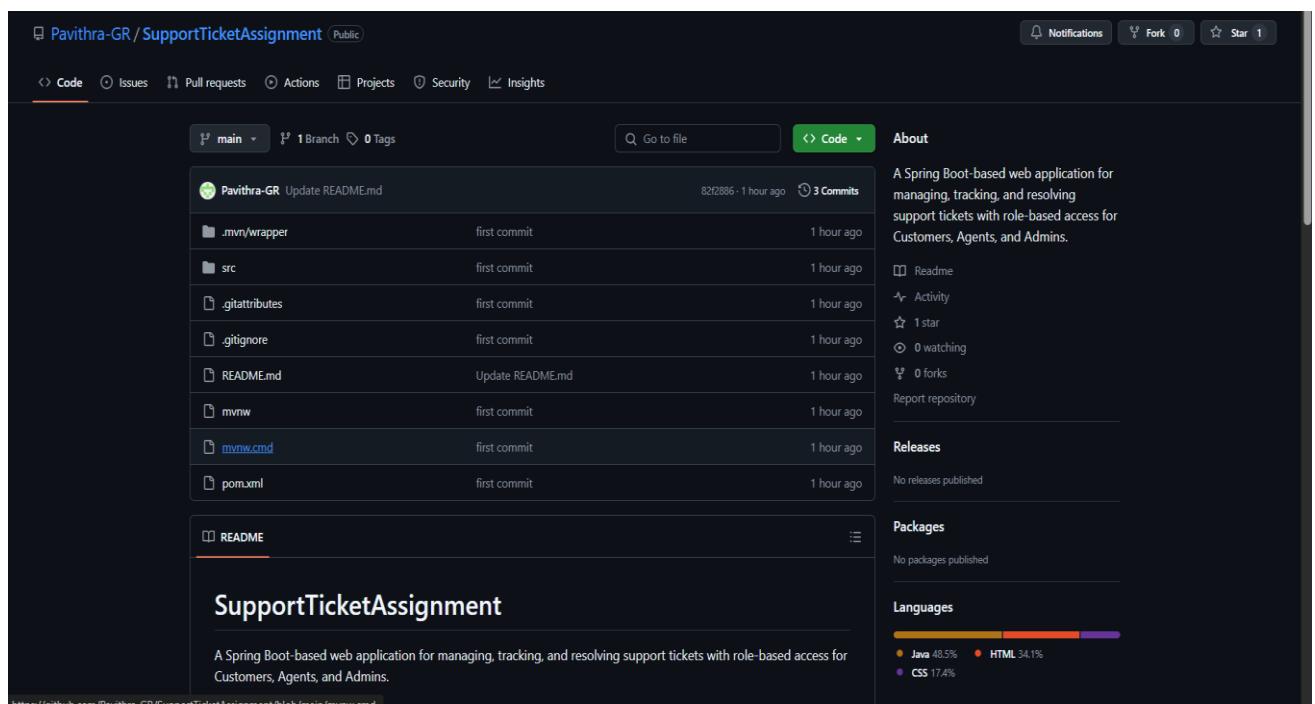
Once the application is running, open: <http://localhost:8080/home>

Database Connection – MYSQL

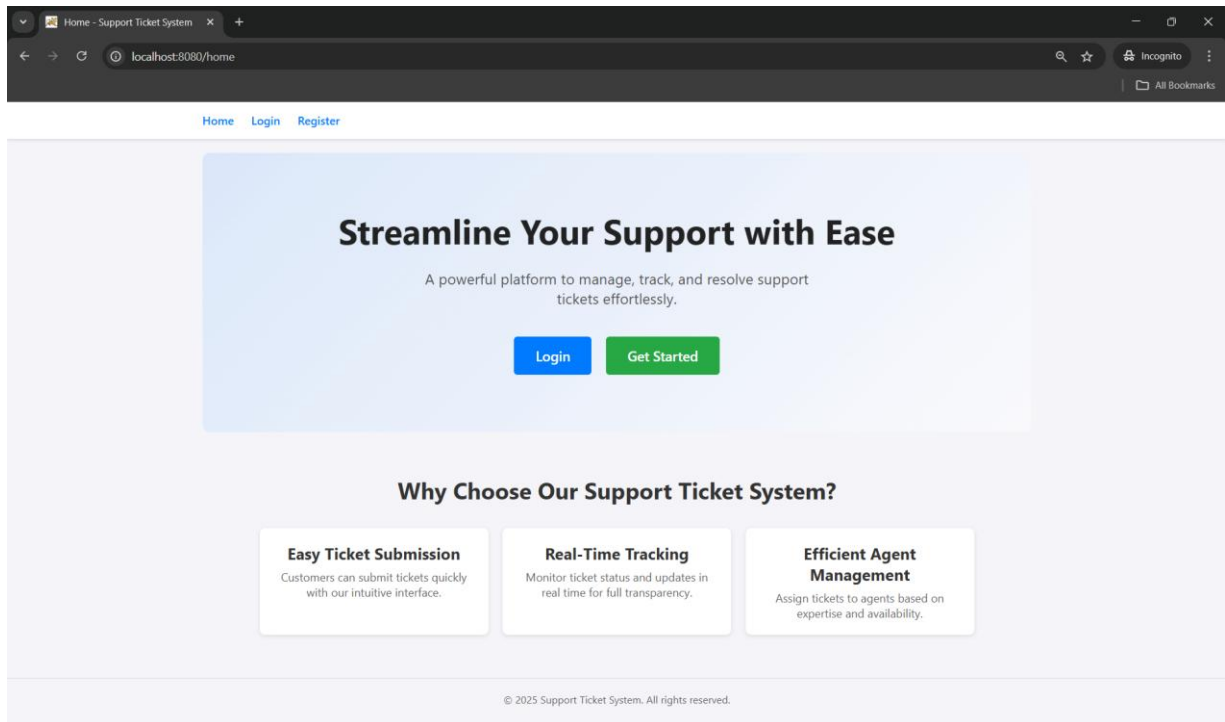
1. create database support_ticket_db;
2. use support_ticket_db;

GITHUB LINK:

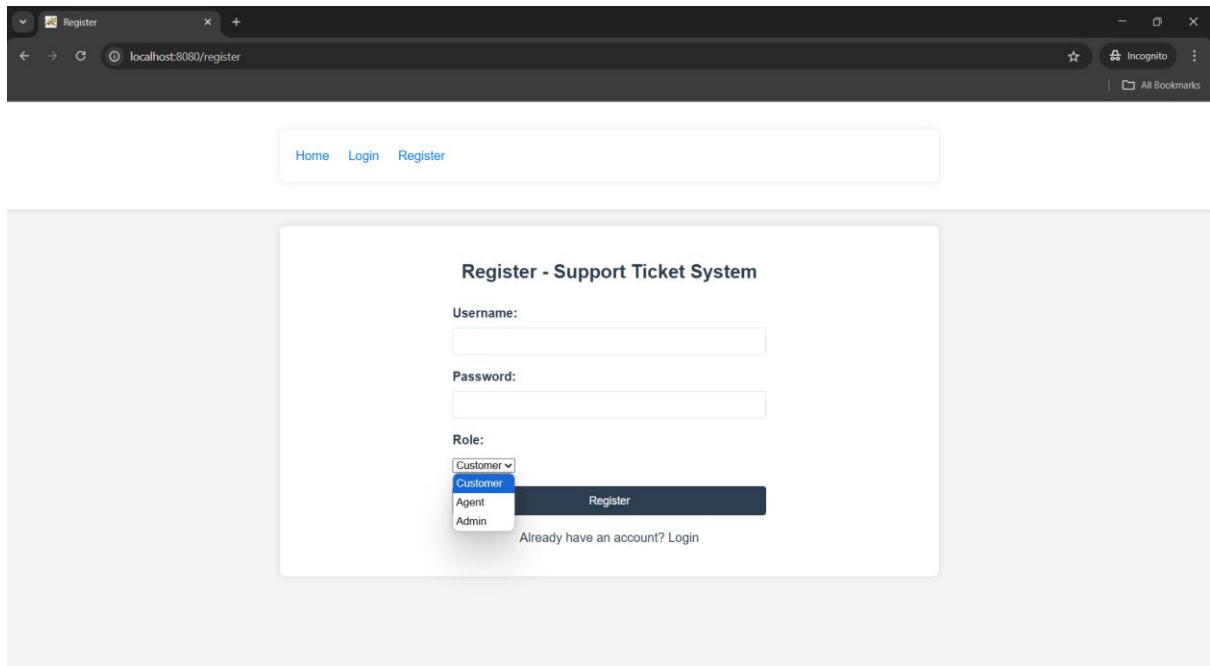
<https://github.com/Pavithra-GR/SupportTicketAssignment>



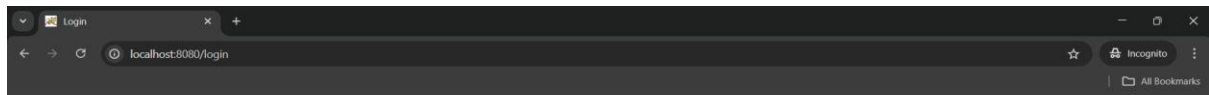
Home Page



Register Page



Login Page



[Home](#) [Login](#) [Register](#)

Login

Username:

cust1

Password:

Login

[Register](#)



[Home](#) [Login](#) [Register](#)

Login

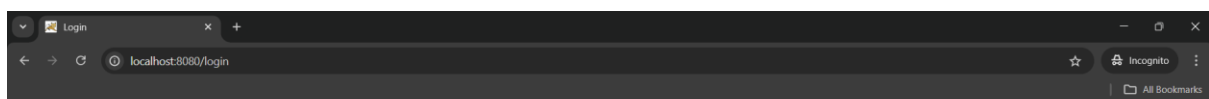
Username:

agent1

Password:

Login

[Register](#)



[Home](#) [Login](#) [Register](#)

Login

Username:

admin1

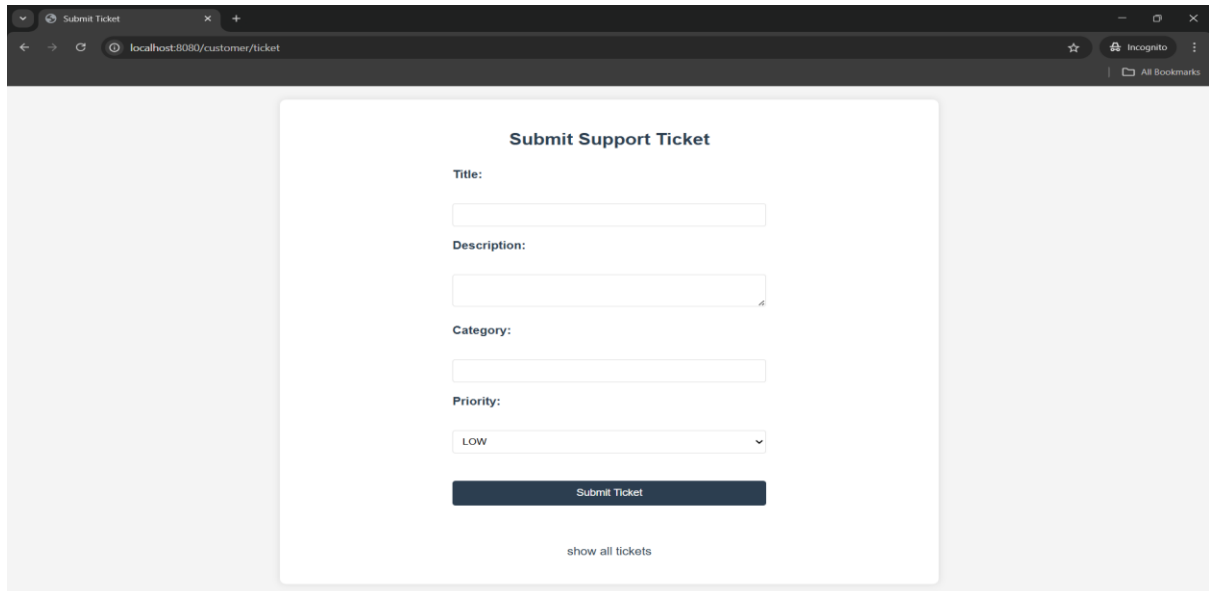
Password:

Login

[Register](#)

Customer Dashboard

To submit New Ticket

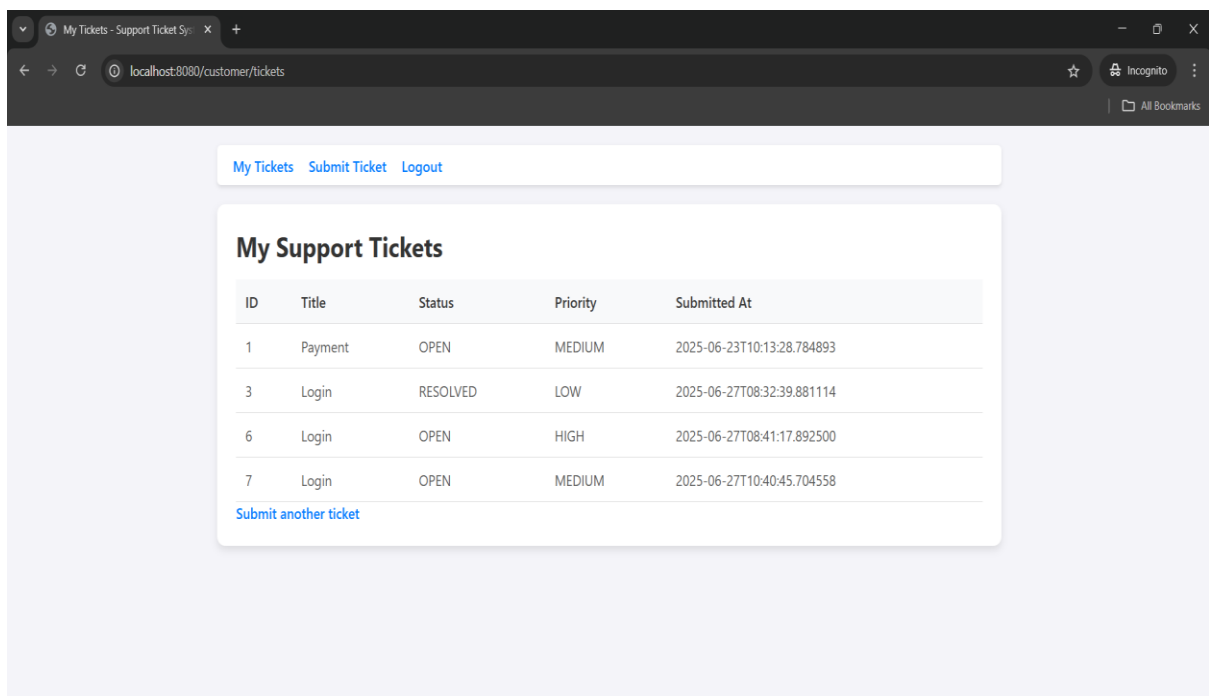


The screenshot shows a web browser window with the address bar displaying 'localhost:8080/customer/ticket'. The page title is 'Submit Ticket'. The main content is a form titled 'Submit Support Ticket' with the following fields:

- Title:** A text input field.
- Description:** A text input field.
- Category:** A text input field.
- Priority:** A dropdown menu with 'LOW' selected.

Below the form is a dark blue button labeled 'Submit Ticket'. At the bottom of the page, there is a link that says 'show all tickets'.

Show Already Submitted Tickets



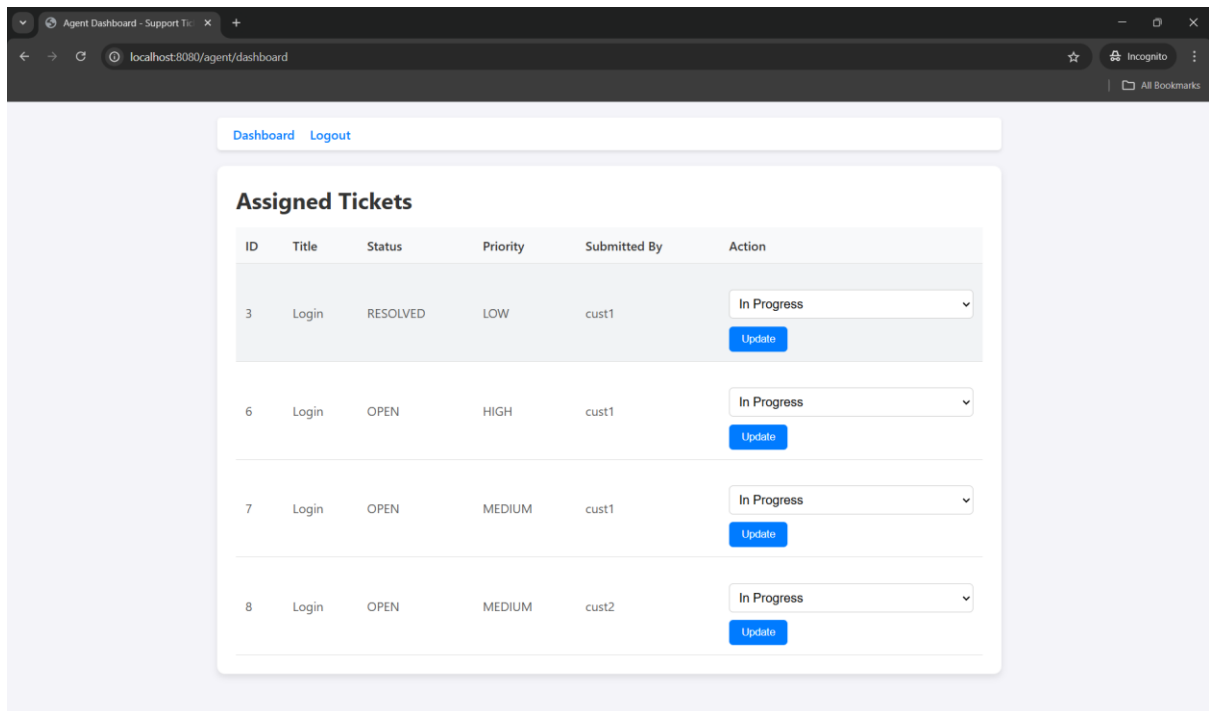
The screenshot shows a web browser window with the address bar displaying 'localhost:8080/customer/tickets'. The page title is 'My Tickets - Support Ticket Sys'. The page has a navigation bar with links: 'My Tickets', 'Submit Ticket', and 'Logout'. The main content is a table titled 'My Support Tickets'.

ID	Title	Status	Priority	Submitted At
1	Payment	OPEN	MEDIUM	2025-06-23T10:13:28.784893
3	Login	RESOLVED	LOW	2025-06-27T08:32:39.881114
6	Login	OPEN	HIGH	2025-06-27T08:41:17.892500
7	Login	OPEN	MEDIUM	2025-06-27T10:40:45.704558

Below the table is a link that says 'Submit another ticket'.

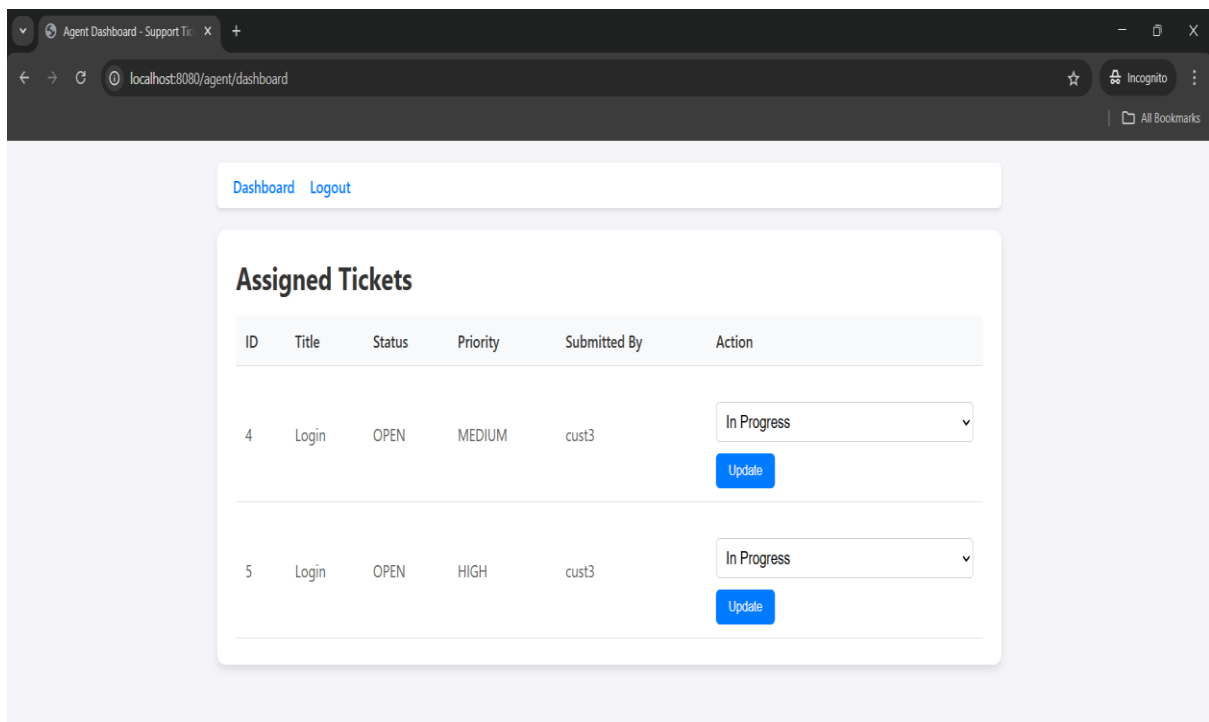
Agent Dashboard

Agent 1 - Specialised (Historically) in Login based Issues



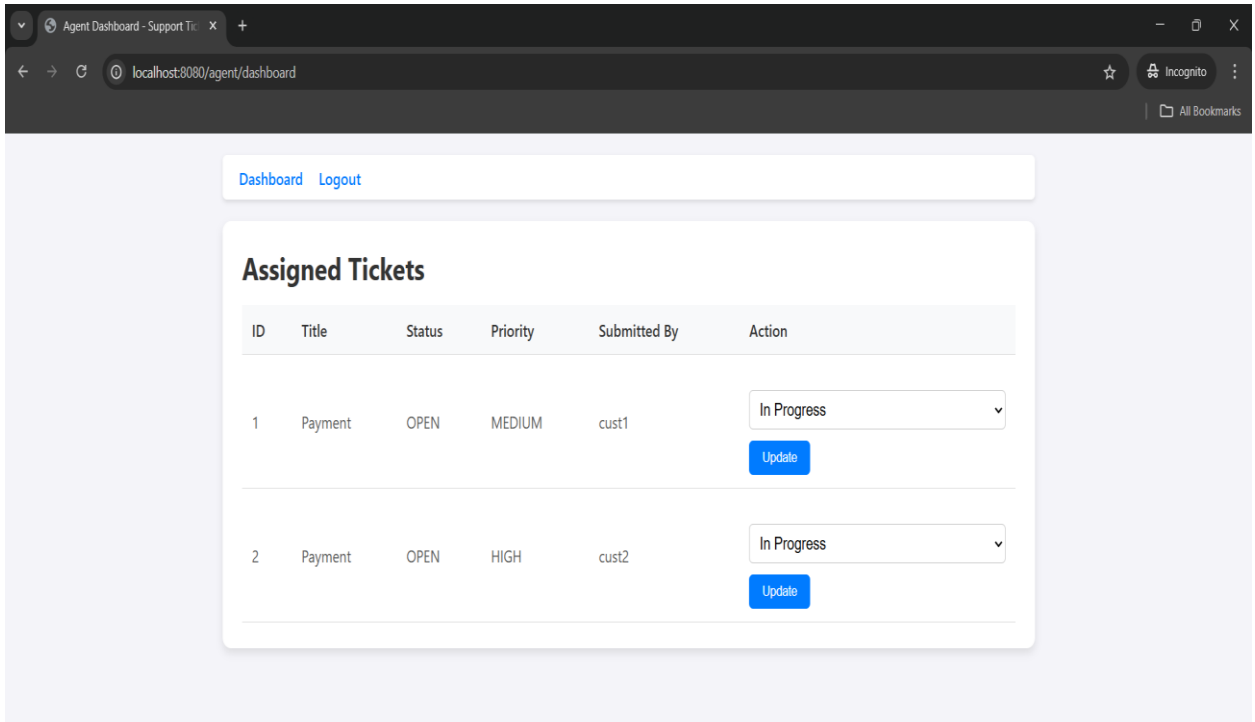
ID	Title	Status	Priority	Submitted By	Action
3	Login	RESOLVED	LOW	cust1	<div>In Progress</div> <div>Update</div>
6	Login	OPEN	HIGH	cust1	<div>In Progress</div> <div>Update</div>
7	Login	OPEN	MEDIUM	cust1	<div>In Progress</div> <div>Update</div>
8	Login	OPEN	MEDIUM	cust2	<div>In Progress</div> <div>Update</div>

Agent 3 -Specialised in Login (According to rules it assigns the ticket to the Agents and Verifies the agent in not overloaded).



ID	Title	Status	Priority	Submitted By	Action
4	Login	OPEN	MEDIUM	cust3	<div>In Progress</div> <div>Update</div>
5	Login	OPEN	HIGH	cust3	<div>In Progress</div> <div>Update</div>

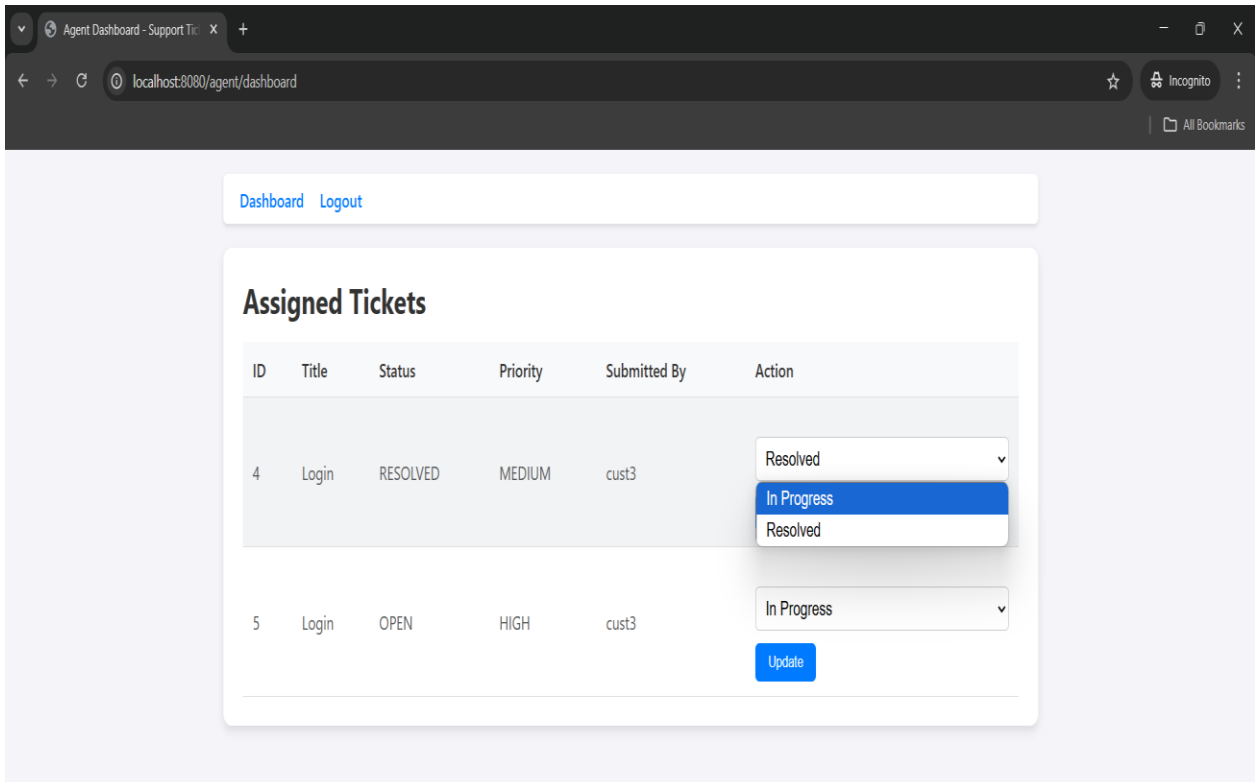
Agent 2 - Specialised (Historically) in Payment based Issues



The screenshot shows a web browser window with the URL `localhost:8080/agent/dashboard`. The dashboard has a header with "Dashboard" and "Logout" links. Below the header is a section titled "Assigned Tickets" containing a table with the following data:

ID	Title	Status	Priority	Submitted By	Action
1	Payment	OPEN	MEDIUM	cust1	<div>In Progress Update</div>
2	Payment	OPEN	HIGH	cust2	<div>In Progress Update</div>

Agents can Resolve the Tickets it will be notified to the customer



The screenshot shows the same web browser window as before, but with a dropdown menu open for the "Action" column of ticket ID 4. The dropdown menu shows three options: "Resolved", "In Progress", and "Resolved". The "In Progress" option is highlighted. The table data is as follows:

ID	Title	Status	Priority	Submitted By	Action
4	Login	RESOLVED	MEDIUM	cust3	<div>Resolved In Progress Resolved</div>
5	Login	OPEN	HIGH	cust3	<div>In Progress Update</div>

Admin Dashboard

- Admin can view all agents and Assigns tokens, the tokens can also be auto-assigned based on agents specialization.
- The Admin can manage all agents and access their Specialization.

[Dashboard](#) [Manage Agents](#) [Logout](#)

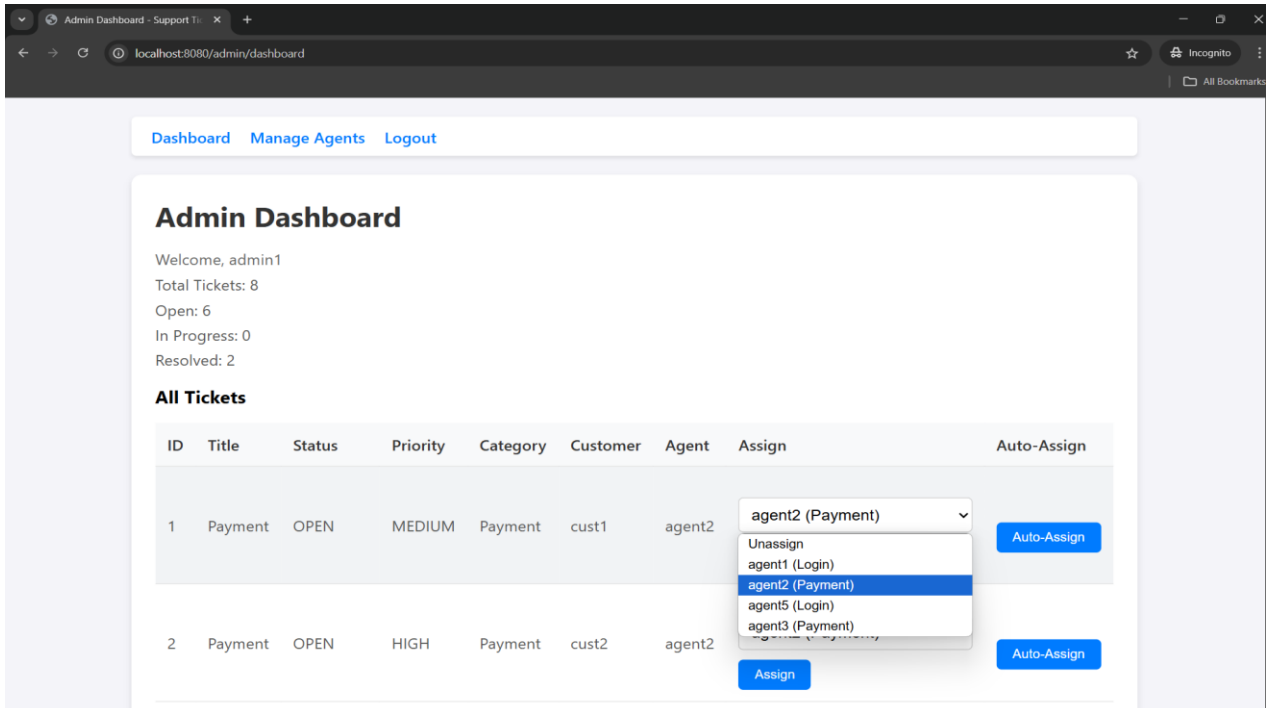
Admin Dashboard

Welcome, admin1
Total Tickets: 8
Open: 6
In Progress: 0
Resolved: 2

All Tickets

ID	Title	Status	Priority	Category	Customer	Agent	Assign	Auto-Assign
1	Payment	OPEN	MEDIUM	Payment	cust1	agent2	<div>agent2 (Payment) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
2	Payment	OPEN	HIGH	Payment	cust2	agent2	<div>agent2 (Payment) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
3	Login	RESOLVED	LOW	LOGIN	cust1	agent1	<div>agent1 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
4	Login	RESOLVED	MEDIUM	LOGIN	cust3	agent5	<div>agent5 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
5	Login	OPEN	HIGH	LOGIN	cust3	agent5	<div>agent5 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
6	Login	OPEN	HIGH	LOGIN	cust1	agent1	<div>agent1 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
7	Login	OPEN	MEDIUM	LOGIN	cust1	agent1	<div>agent1 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>
8	Login	OPEN	MEDIUM	LOGIN	cust2	agent1	<div>agent1 (Login) ▼</div> <div>Assign</div>	<div>Auto-Assign</div>

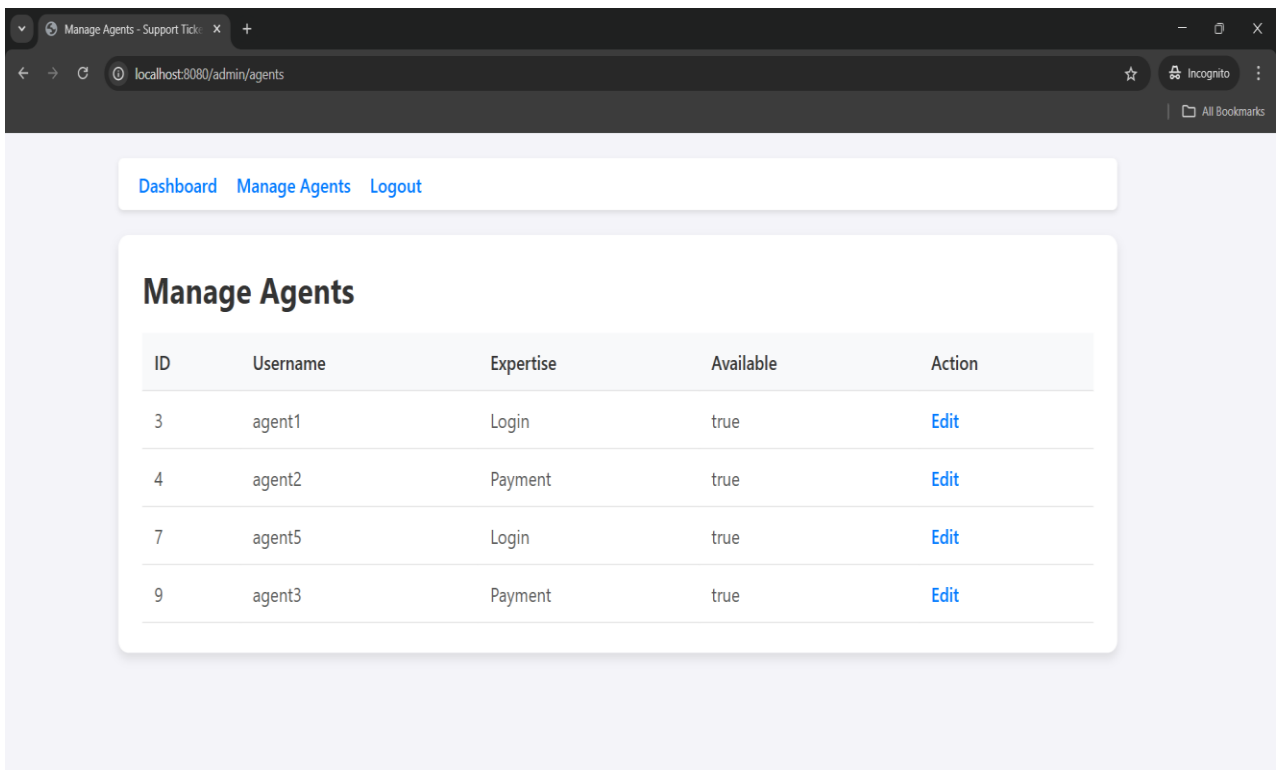
Admin – Assigning Agents



The screenshot shows the 'Admin Dashboard' in a web browser. The dashboard includes a navigation bar with 'Dashboard', 'Manage Agents', and 'Logout'. The main content area displays 'Admin Dashboard' with a welcome message and ticket statistics: 'Total Tickets: 8', 'Open: 6', 'In Progress: 0', and 'Resolved: 2'. Below this is a table titled 'All Tickets' with columns: ID, Title, Status, Priority, Category, Customer, Agent, Assign, and Auto-Assign. Two tickets are listed. The first ticket (ID 1) is assigned to 'agent2'. A dropdown menu is open for the 'Assign' column, showing options: 'Unassign', 'agent1 (Login)', 'agent2 (Payment)' (highlighted), 'agent5 (Login)', and 'agent3 (Payment)'. The second ticket (ID 2) is also assigned to 'agent2'.

ID	Title	Status	Priority	Category	Customer	Agent	Assign	Auto-Assign
1	Payment	OPEN	MEDIUM	Payment	cust1	agent2	agent2 (Payment)	Auto-Assign
2	Payment	OPEN	HIGH	Payment	cust2	agent2	Assign	Auto-Assign

Admin – Manage Agents



The screenshot shows the 'Manage Agents' page in a web browser. The page includes a navigation bar with 'Dashboard', 'Manage Agents', and 'Logout'. The main content area displays 'Manage Agents' with a table listing agents. The table has columns: ID, Username, Expertise, Available, and Action. Four agents are listed, each with an 'Edit' link in the Action column.

ID	Username	Expertise	Available	Action
3	agent1	Login	true	Edit
4	agent2	Payment	true	Edit
7	agent5	Login	true	Edit
9	agent3	Payment	true	Edit

Admin – Edit Agents

Dashboard Manage Agents Logout

Edit Agent: agent2

Expertise (comma-separated, e.g., login,payment):

Available:

Update

Conclusion

The Support Ticket Assignment System is a comprehensive and user-friendly web application developed using Java Full Stack technologies. It provided valuable hands-on experience across both frontend and backend development, integrating key components such as Spring Boot, Spring Security, and Spring Data JPA on the backend, and Thymeleaf, HTML, and CSS on the frontend.

The system enhances efficiency in managing support tickets through role-based access control and intelligent ticket assignment, utilizing historical resolution data and predefined Standard Operating Procedures (SOPs).

Users interact with the system in distinct roles:

- Customers: Create, view, and track support tickets.
- Agents: Automatically assigned tickets relevant to their area of expertise (e.g., login issues, payment queries).
- Admins: Manage users, monitor system performance, and ensure proper ticket handling and resolution.

This project strengthened practical skills in Java Full Stack development, including secure user authentication, dynamic UI development, and persistent data handling through relational databases. It exemplifies the integration of robust backend logic with a responsive and intuitive frontend to deliver a real-world, scalable support solution.