Use Case: Customer Support Ticket System

Problem Statement:
Develop a customer support ticket system where users can register, log in, create, read, update, and delete support tickets (CRUD). The system should also support ticket assignment, status tracking, and notifications.

Expected Output:
A fully functional customer support ticket system with the following features:

User Registration and Login: Users should be able to register with their email and password and log in to their account.

Ticket CRUD Operations: Users should be able to create, read, update, and delete their own support tickets.

Assignment: Support tickets should be assignable to support agents.

Status Tracking: Users should be able to track the status of their support tickets.

Notifications: Users should receive notifications for ticket updates and status changes.

Responsive Design: The system should be responsive and user-friendly across different devices.

Detailed Features and Expectations:

User Registration and Login:

Feature: Users can register with email and password.

Expectation: Validate email format and password strength. Ensure secure password storage using hashing.

Ticket CRUD Operations:

Feature: Users can create, read, update, and delete their own support tickets.

Expectation: Implement ticket details including title, description, priority, and status. Ensure proper authorization for managing tickets.

Assignment:

Feature: Support tickets can be assigned to support agents.

Expectation: Implement functionality for assigning tickets to specific support agents, with the ability to reassign as needed.

Status Tracking:

Feature: Users can track the status of their support tickets.

Expectation: Implement status updates such as "Open," "In Progress," "Resolved," and "Closed." Allow users and agents to update status.

Notifications:

Feature: Users receive notifications for ticket updates and status changes.

Expectation: Implement real-time notifications using WebSockets or email notifications for ticket changes.

Responsive Design:

Feature: The system should be responsive and work well on various devices.

Expectation: Use responsive design principles, test on different screen sizes.