Assignment

Project Title: Assignment Submission Portal

Objective: Develop a Application for an assignment submission portal with functionality for user and admin roles.

Technologies Used:

- Java: Backend development

- Spring Boot: Framework for building the backend services

- MongoDB/MySQL: Database for storing assignments and user data

- Maven/Gradle: Project management and build tool

- JUnit: Testing framework for unit tests

Scenario:

Create a system where users can upload assignments, and admins can accept or reject these assignments. The system should manage user registrations, logins, and assignment submissions with proper validation and error handling.

Functionality:

- **Users** can:

- Register and log in.

- Upload assignments.

- View all available admins.

- **Admins** can:

- Register and log in.

- View assignments tagged to them.

- Accept or reject assignments.

Endpoints:

- User Endpoints:

- `POST /register`: Register a new user.
- `POST /login`: User login.
- `POST /upload`: Upload an assignment.
- `GET /admins`: Fetch all admins.

- Admin Endpoints:

- `POST /register`: Register a new admin.
- `POST /login`: Admin login.
- `GET /assignments`: View assignments tagged to the admin.
- `POST /assignments/{id}/accept`: Accept an assignment.
- `POST /assignments/{id}/reject`: Reject an assignment.

Database Schema:

- Users Collection: Stores user and admin details.
  - `userId`: String
  - `username`: String
  - `password`: String
  - `role`: String (User/Admin)
- Assignments Collection: Stores assignment details.
  - `assignmentId`: String
  - `userId`: String
  - `task`: String
  - `admin`: String
  - `timestamp`: Date
  - `status`: String (Pending/Accepted/Rejected)

Key Features:

- Input Validation: Ensure all inputs are validated and proper error messages are provided.

- User Management: Implement proper user and admin management.

- OAuth2 Authentication: Optionally implement OAuth2 for user authentication.

- Modularity: Ensure code is modular and well-structured for readability and maintainability.

- Documentation: Provide proper documentation on how to set up and run the system.

- Code Comments: Include clear and concise comments for readability.

Deliverables:

1. A fully functional system that meets the requirements.

2. Proper documentation on how to set up and run the system.

3. A video walkthrough (maximum 2 minutes) explaining the approach and decisions made.

4. Submission via a GitHub repository link, ensuring the repository is public or providing access to reviewers.

Deadline: 28th December 2024, 12:00 PM IST (Indian Standard Time)