

Technical Assignment: Asset Management System

Introduction

The task is to create a Spring Boot application for an Asset Management System. This system will allow users to manage various assets, such as mobile devices and laptops, by performing operations like adding assets, assigning them to employees, updating their information, and more. The application should provide a RESTful API for interacting with the system.

Requirements

1. Category Management

- Users should be able to add a new category of assets.
- Each category should have a unique ID, a name, and a description.

2. Update Category

- Users should be able to update the details (name and description) of an existing category.

3. List All Categories

- Users should be able to retrieve a list of all existing asset categories.

4. Asset Management

- Users should be able to add a new asset to the system.
- Each asset should have a name, purchase date, condition notes, a category, and an assignment status (Available, Assigned, Recovered).

5. List of Assets

- Users should be able to retrieve a list of all assets in the system.

6. Search Assets

- Users should be able to search for assets based on their names.

7. Update Asset

- Users should be able to update the details of an existing asset, such as its name, purchase date, condition notes, category, and assignment status.

8. Assign Asset

- Users should be able to assign an asset to an employee.
- An asset that is already assigned cannot be assigned to another employee until it is recovered.

9. Recover Asset

- Users should be able to mark an asset as "Recovered" from an employee.
- An asset that is recovered should be available to be assigned to another employee.

10. Delete Asset

- Users should be able to delete an asset from the system.
- An asset cannot be deleted if it is currently in an "Assigned" state.

Expectations

- Use Spring Boot to implement the RESTful API for the Asset Management System.
- Utilize a suitable database (e.g., MySQL, PostgreSQL, H2) to store the asset and category information.
- Implement proper validation and error handling for the API.
- Write clear and concise documentation for each API endpoint using Swagger or similar tools.
- Implement unit tests to ensure the functionality of critical components.
- Share the project code and the class diagram with us for review.

Deadline

The deadline for this assignment is 3 days from today. Please submit the completed project along with the class diagram and any additional instructions required for reviewing the assignment.

If you have any questions or need further clarification on the requirements, feel free to ask.
Good luck with your implementation!