

Lab 12

The Bank Management System is a web-based application that allows users to manage their bank accounts and perform financial transactions.

Use: Spring web, Lombok, Validation, MySql Driver, Spring Data JPA, Spring Security Dependencies.

1. User Model:

- **id:** Generated automatically.
- **username:**
 - Cannot be null.
 - Length must be between 4 and 50 characters.
 - Must be unique.
- **password:**
 - Cannot be null.
 - Length must be at least 6 characters.
- **name:**
 - Cannot be null.
 - Length must be between 2 and 50 characters.
- **email:**
 - Must be a valid email format.
 - Must be unique.
- **age:**
 - Must be a positive integer.
- **role:**
 - Must be either "CUSTOMER" or "ADMIN" only.

2. Account Model:

- **id:** Generated automatically.
- **accountNumber:**
 - Cannot be null.
 - Must follow a specific format (e.g., "XXXX-XXXX-XXXX-XXXX").
- **balance:**
 - Cannot be null.
 - Must be a non-negative decimal number.

Relations:

One User May Have Many Accounts (OneToMany).

Endpoints:

1. User Register and login.
2. CRUD operations for users (Read, Update, Delete)
3. Create a new bank account
4. View account details.
5. List user's accounts
6. Deposit and withdraw money
7. Transfer funds between accounts
8. Close bank account

Note: Add Authorization to All Endpoints