

## Project 3

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 10 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 20 characters.
- **email:**
  - Must be a valid email format. - Must be unique. •
- **role:**
  - Must be either "CUSTOMER" , "EMPLOYEE" or "ADMIN" only.

## 2. Employee Model:

- **id:** Generated automatically.
- **position:**
  - Cannot be null.
- **salary:**
  - Cannot be null.
  - Must be a non-negative decimal number.

## 3. Customer Model:

- **id:** Generated automatically.
- **phoneNumber:**
  - Cannot be null.
  - Must start with "05"

## 4. 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.
- **isActive:**
  - By default, false.

## Relations:

User can be an employee or a customer (OneToOne).

One Customer May Have Many Accounts (OneToMany).

**Endpoints:**

1. CRUD operations
2. Create a new bank account
3. Active a bank account
4. View account details
5. List user's accounts
6. Deposit and withdraw money
7. Transfer funds between accounts
8. Block bank account

**Note:** Add Authorization to All Endpoints