LHV

Account Management Service

Objective

Develop a RESTful service using latest JAVA LTS, Gradle, Spring Boot, Liquibase, and database that manages account data. The service should provide endpoints to create, read, update, and delete account information.

Requirements

- Initialize a new Gradle project
- Set up Spring Boot with the necessary dependencies for web development
- Configure Liquibase for database schema version control
- Use MySQL or H2 as the in-memory database for development and testing purposes

Domain model

Create an Account entity with the following fields:

- id (primary key, auto-generated)
- name
- phoneNr (optional, for proxy payment "nimemakse")
- createdDtime (timestamp of creation)
- modifiedDtime (timestamp of last update)

Repository layer

- Implement an AccountRepository interface that extends JpaRepository for basic CRUD operations

Service layer

- Develop an AccountService class that provides business logic for managing accounts. It should use AccountRepository for database interactions

REST controller

- Implement an AccountController class with REST endpoints for CRUD operations
- POST /accounts to create a new account
- GET /account/{id} to retrieve an account by ID
- PUT /accounts/{id} to update an existing account
- DELETE /accounts/{id} to delete an account

Validation

- Add validation to ensure that name is not empty
- If phone number is provided, then ensure that it is in a valid format

Database migration

- Use Liquibase to create a changelog for the initial Account schema

Testing

- Write unit tests for AccountService methods
- Write integration tests for AccountController endpoints

Documentation

- Document the REST API using OpenAPI/Swagger