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Assignment #1: Webshop basics



Assignment

Create a REST webshop service using the following technology stack:

- Java 8+
- Maven
- Git
- [Spring Boot](#) + [Spring Web MVC](#)
- [Spring Data JPA](#)
- Relational database (use [Postgres in Docker container](#))
- [JUnit](#) , [AssertJ](#) , [Wiremock](#) for unit tests

The outcome of this assignment should be a simple REST service that can be used as a webshop backend. The source must be packaged as a Java JAR file.

Project README must include steps for setting up the local environment.

The work should contain the following parts:

- Product model
- REST CRUD API for Product
 - request validation
 - tests for created endpoints
- Customer and Order model
- REST API for Order
 - endpoints
 - create-order
 - update-order (only available products can be added to the order)
 - read-order
 - delete-order
 - tests for created endpoints
- Endpoint for finalizing the order
 - Calculate total price in HRK (default currency)
 - Call [HNB API](#) to retrieve current exchange rates (HRK/EUR)
 - set total_price_eur based on retrieved exchange rate
 - use wiremock for mocking in tests
 - Set order status after finalization
 - tests for created endpoint

Models

Product

- id (autogenerated)
- code (unique) (exactly 10 characters)
- name
- price_hrk (≥ 0)
- description
- is_available (boolean)

Customer

- id (autogenerated)
- first_name
- last_name
- email

Order

Note: order is a reserved keyword in SQL, so alternative table name must be used e.g. webshop_order.

- id (autogenerated)
- customer_id
- status (enum: DRAFT, SUBMITTED)
- total_price_hrk
- total_price_eur

OrderItem

- id (autogenerated)
- order_id
- product_id
- quantity

