

ReadingIsGood

ReadingIsGood is an online books retail firm which operates only on the Internet. Main target of ReadingIsGood is to deliver books from its one centralized warehouse to their customers within the same day.

How to Start

First of all, I did research about spring boot because I don't use spring boot professionally. Then I carefully read the case-study given to me and fictionalized how I should set up the structure in the database. After modeling, I started doing the case-study by researching.

Technology Stack

- Java 17
- Spring Boot
- Postgresql
- Maven
- Docker

About Application

Since all web services that can be used in the application are secure (except register and login), the user must first create an account. In addition, every web service has some restrictions. In these cases, the webservice returns an error. Swagger documentation can be checked for details.

Authentication

As mentioned earlier, every web services are secure. They expects bearer token which can be taken after login operation. Token expires after 24 hours.

Authorization

The application has 2 roles within the scope of authorization. These are **ADMIN**, **USER** roles. Only those with the admin role can add new books to the stock or update the number of books in the stock. Additionally admin role views random customer order or all orders. To register as admin `/admin/register` service can be used.

Project Run

1. mvn clean install
2. docker build -t app .
3. docker run app

Consistency

OptimisticLock used for consistency. OptimisticLock works with versioning. If data versions differs, transaction fails.

May Be Added In The Future

- **Retry Mechanism**
- **Caching Sessions** (Distributed Caching Mechanism can be performed.)
- **UserActionLogs** can be saved in a persistent storage

Notes:

- **Application Url:** <http://localhost:8080/>
- **Swagger link:** <http://localhost:8080/swagger-ui/index.html>
- **Postman documentation:**
https://github.com/kaannbey/ReadingIsGood/blob/development/reading-is-good/ReadingIsGood.postman_collection.json
- **/order/all** path only retrieves authenticated user orders. Only those with the admin role can view all orders in application via **/admin/order/all**
- **/order/{orderId}** path only retrieve order that belongs to authenticated user. Only those with the admin role can retrieve any order in application via **/admin/order/{orderId}**
- **/order** path adds book to shopping cart. The customer adds the products to the cart via this web service in order to place an order.
- **/order/approve** completes the order. Order status changes **ON_SHOPPING_CART** to **APPROVED**.
- **/admin/register** this webservice requires a header for security. Header value => reading-is-good
- **/statistics**
totalBookCount shows the total number of book purchases by the customer during the month
totalOrderCount shows the total number of orders the customer placed in the month
totalPurchasedRatio shows the ratio of the number of books purchased by the customer to the general in the month

Author : Kaan Nuri Beyhan

Github Link: <https://github.com/kaannbey/ReadingIsGood/tree/development/reading-is-good>