ReadingIsGood Documentation

About

ReadingIsGood is a stand-alone application that was built using Spring-Boot and it has REST Api.

System tools:

- Java: 11
- Maven: 4.0.0
- Spring-boot: 2.7.5
- Database: MongoDB (v4.4.6)

System has the basic models needed to meet the requirements: **User**, **Book**, **Order**, **Stats** and **Role** (ERole enum class also exists to provide accessing role types easily). There are also **BookDaO**, **CustomerDao** and **OrderDao** classes in the Data Access Layer to achieve application-based operations in the Persistence Layer.

Whole application is secured by **Bearer** (JWT) authentication except **login** and **signup** requests and also Preauthorized endpoints with admin and user roles.

BookController, **OrderController**, **CustomerController** and **StatisticsController** handle the incoming requests and return meaningful response messages. With using these controllers, below executions can be processed.

1. Customer Controller:
    - new user can sign up
    - user can bring all her/his orders
    - user can log in to system
2. Book Controller:
    - admin can add new book
    - user can update the existing book stock (increase or decrease)
3. Order Controller:
    - user can order
    - user can bring order information with it's id
    - user or admin can get orders by giving date interval
4. Statistics Controller:
    - user can bring monthly order statistics

Run Project

Application runs on port **9090** and main MongoDB runs on **27017 (in Docker network)**. Mongo data can be tracked on port **8081** via Mongo Express which is a third-party tool.

Mongo Express credentials: username: **admin**, password: **admin**

There are two ways to start (in the main project path):

1. Run **docker-compose up -d –build** command for dockerized application and the system will be ready for usage. If you get ***permission error***, please run the command with **sudo** or any **administration**.

2. Run **./mvnw spring-boot:run** command for local execution and also **docker-compose up -d –build** (please read important note) command because the database will only be status up in Docker container.

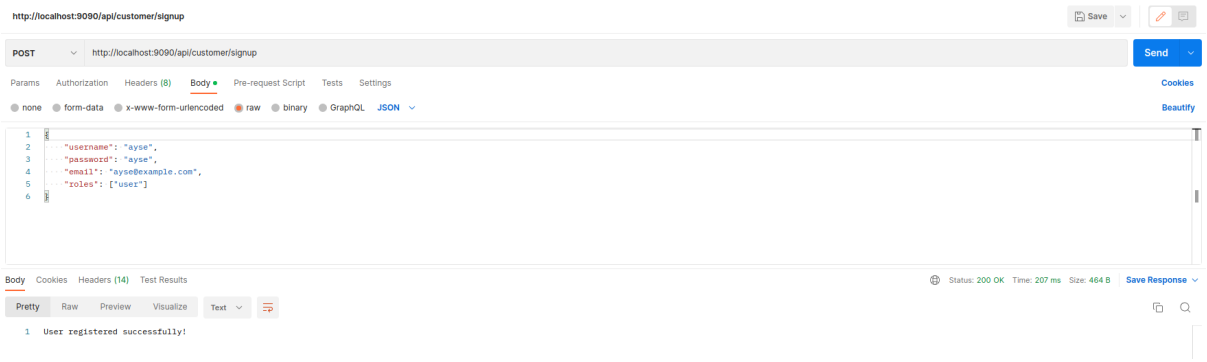
Important Note: For local execution, please remove **rig** service (short of the readingisgood) from (or comment in) ***docker-compose.yml*** file otherwise application may throw ***port already in use error***.

Postman Requests

1. Sign Up Request

Usage: Roles attribute might not be sent from request or it can be both admin and user but username, password and email fields must not be null.

POST - http://localhost:9090/api/customer/signup with body



2. Login Request

Usage: Username and password must not be null and the user must already exist. It will return a Bearer token. Please use this token for all operations.

POST - http://localhost:9090/api/customer/login with body

3. New Book Request

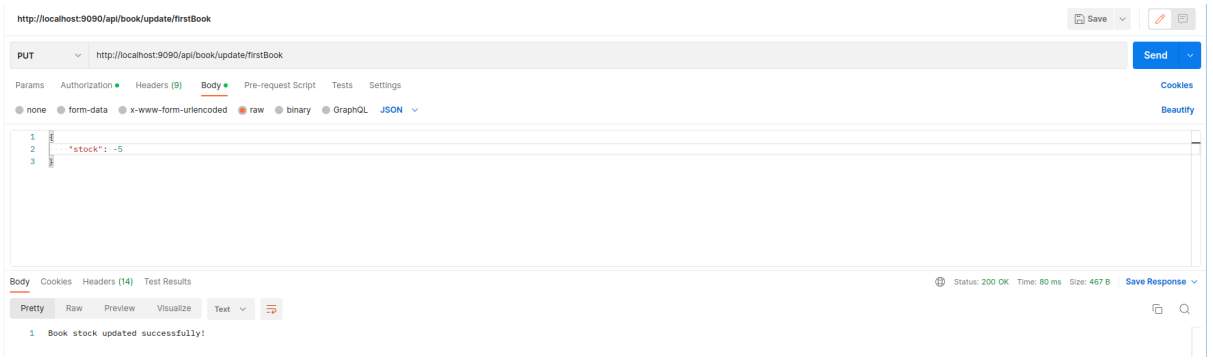
Usage: Name and price should be given in a proper way. If stock is not given, it can be updated later but price not. Stock must not be negative, name and price must not be null.

POST - http://localhost:9090/api/book/add with body

4. Book Update Request

Usage: Book name for update must be given in a URL path. Stock should be given for decreasing (negative) or increasing (positive).

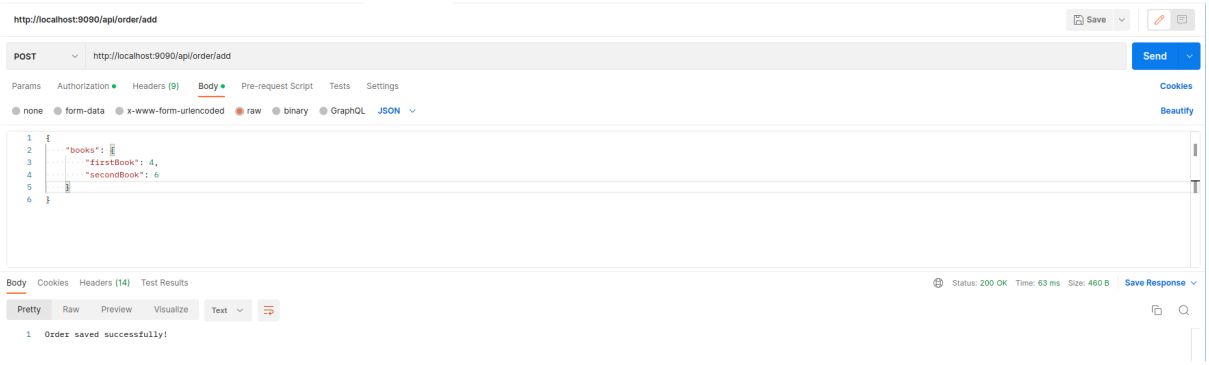
PUT - http://localhost:9090/api/book/update/<bookName> with body



5. Add Order Request

Usage: Books for order must be given in the below format. Book count should be a positive number.

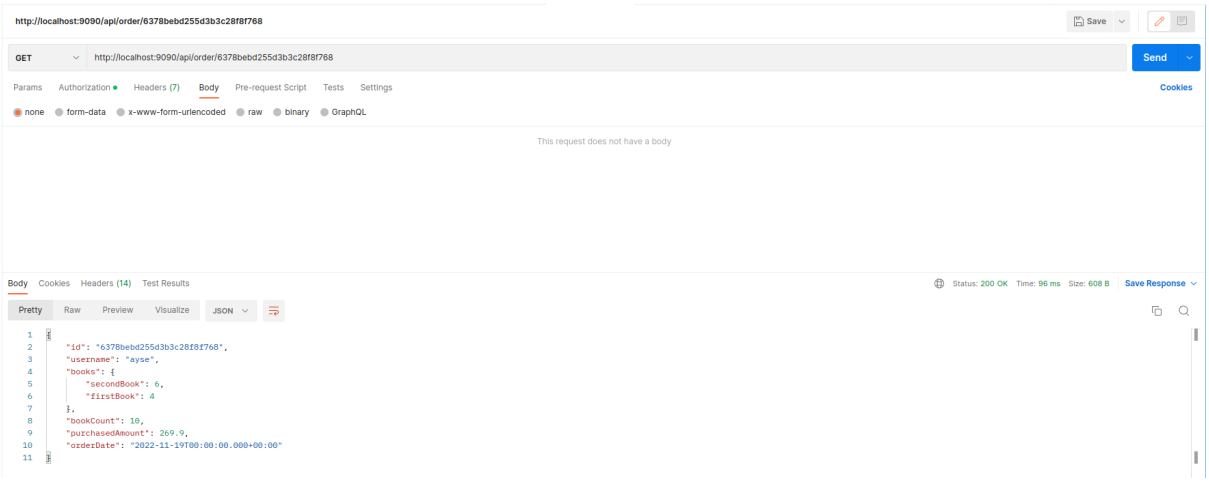
POST - http://localhost:9090/api/order/add with body



6. Get Order By Id Request

Usage: Order ID is given automatically from MongDB so it should be brought from the database. Mongo Express can be used for this operation.

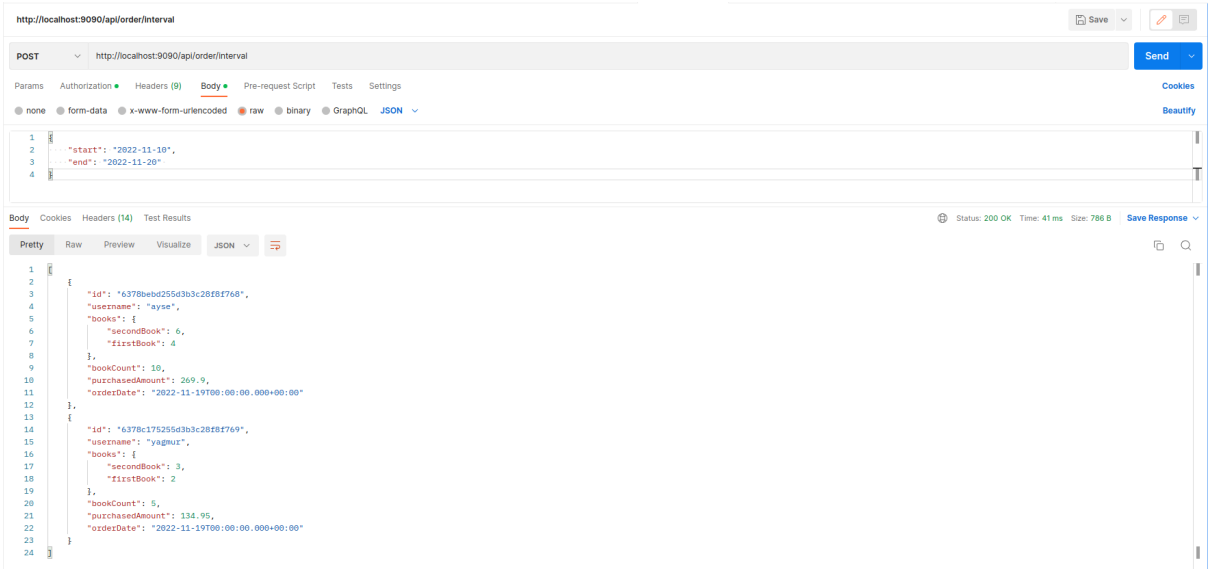
GET - http://localhost:9090/api/order/<orderId> without body



7. Get Orders By Interval Request

Usage: Start and end dates must be given in a proper format as below.

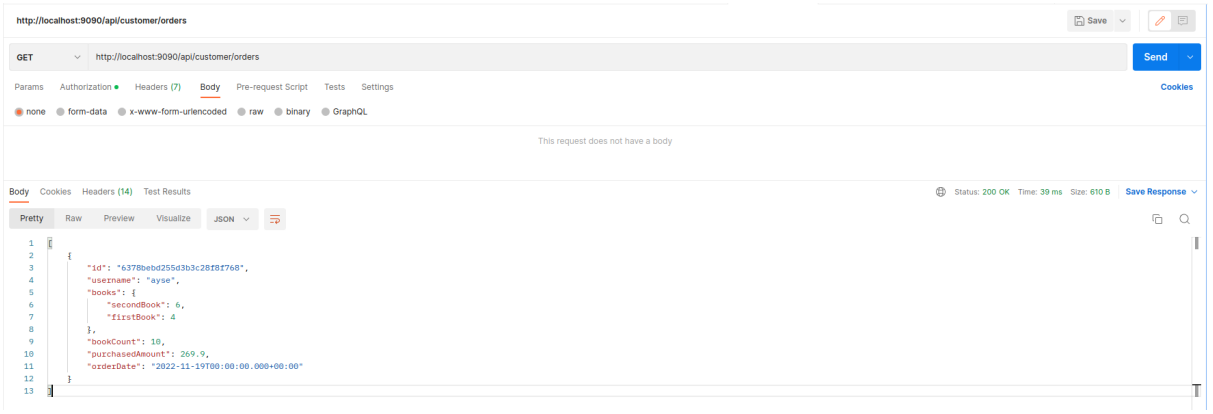
POST - http://localhost:9090/api/order/interval with body



8. Get Customer Orders Request

Usage: Bearer token for this request is enough.

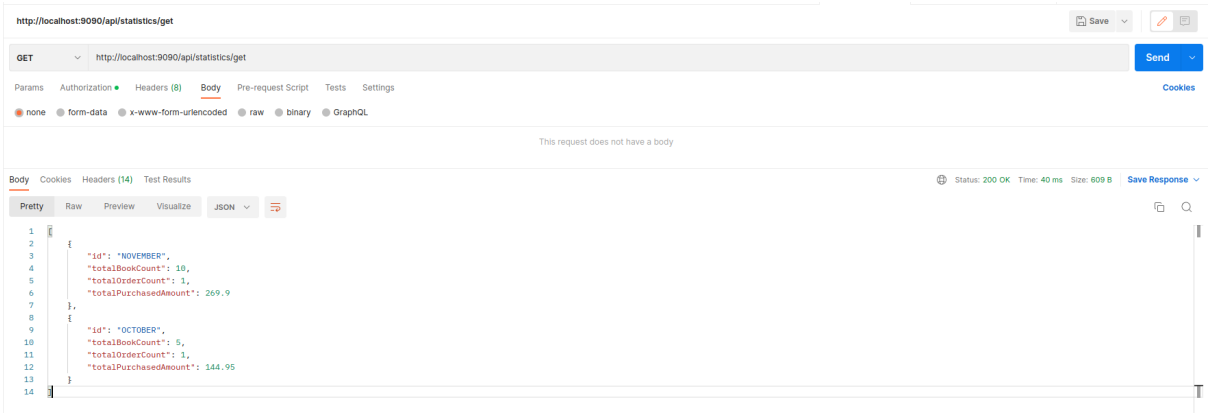
GET - http://localhost:9090/api/customer/orders without body



9. **Get Customer Statistics Request**

Usage: Bearer token for this request is enough.

GET - http://localhost:9090/api/statistics/get without body



If it is desired to test that all the requirements are fulfilled, the data can be manipulated via Mongo Express.

Tests

Assumption: Test environment must be ready. Tests will be run independently and they have different Mongo database so please run the

1. **docker-compose -f docker-compose-test.yml up -d –build** command.

If you get ***WARNING: Found orphan containers,*** there is no problem. This is because there are two different docker-compose.yml files and they try to run in the same project directory but this does not prevent the application and the tests from running separately.

In the test environment, MongoDB also stays on port **27017** and Mongo data for testing can be tracked on port **8082**.

Mongo Express credentials: username: **admin**, password: **admin**

Run Tests

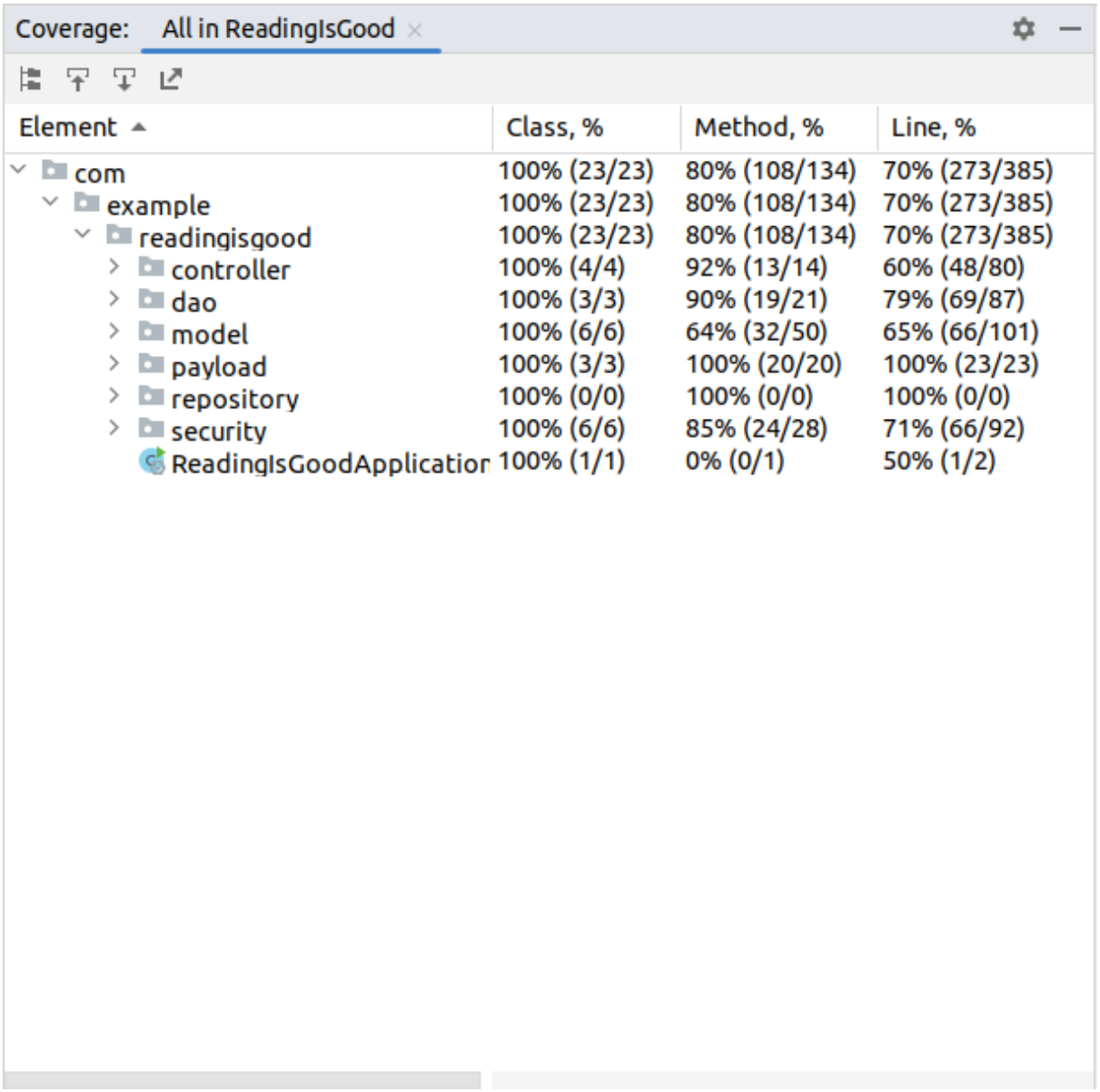
Please run the following command to start all tests (in main project path):

1. **./mvnw test**

While tests are running, they will create their own data and after tests finish, they will delete all test data from MongoDB to avoid conflict. You can not see the test data because of this situation.

Coverage Results

For coverage results, tests are run with coverage thanks to IDE.



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