Microservices Project

This project was developed as part of a microservices course. It demonstrates the implementation of various microservices, each with specific functionalities, and their orchestration using Docker and Docker Compose.

Microservices

1. **Eureka Server**
    - Service Discovery Server
    - Port: `8761`
2. **Product Service**
    - Manages products and their details
    - Port: `8081`
3. **Cart-Orders Service**
    - Manages cart and orders
    - Port: `8085`
4. **Review Service**
    - Manages product reviews
    - Port: `8086`
5. **Auth Service**
    - Handles authentication
    - Port: `8082`
6. **Gateway Service**
    - API Gateway for routing
    - Port: `8083`

Prerequisites

- Java 17
- Maven
- Docker
- Docker Compose

Setup and Execution

Follow these steps to set up and run the project:

1. **Clean and Package the Applications**

    Navigate to the root directory and run:

```
mvn clean package -DskipTests
```

2. **Build Docker images**

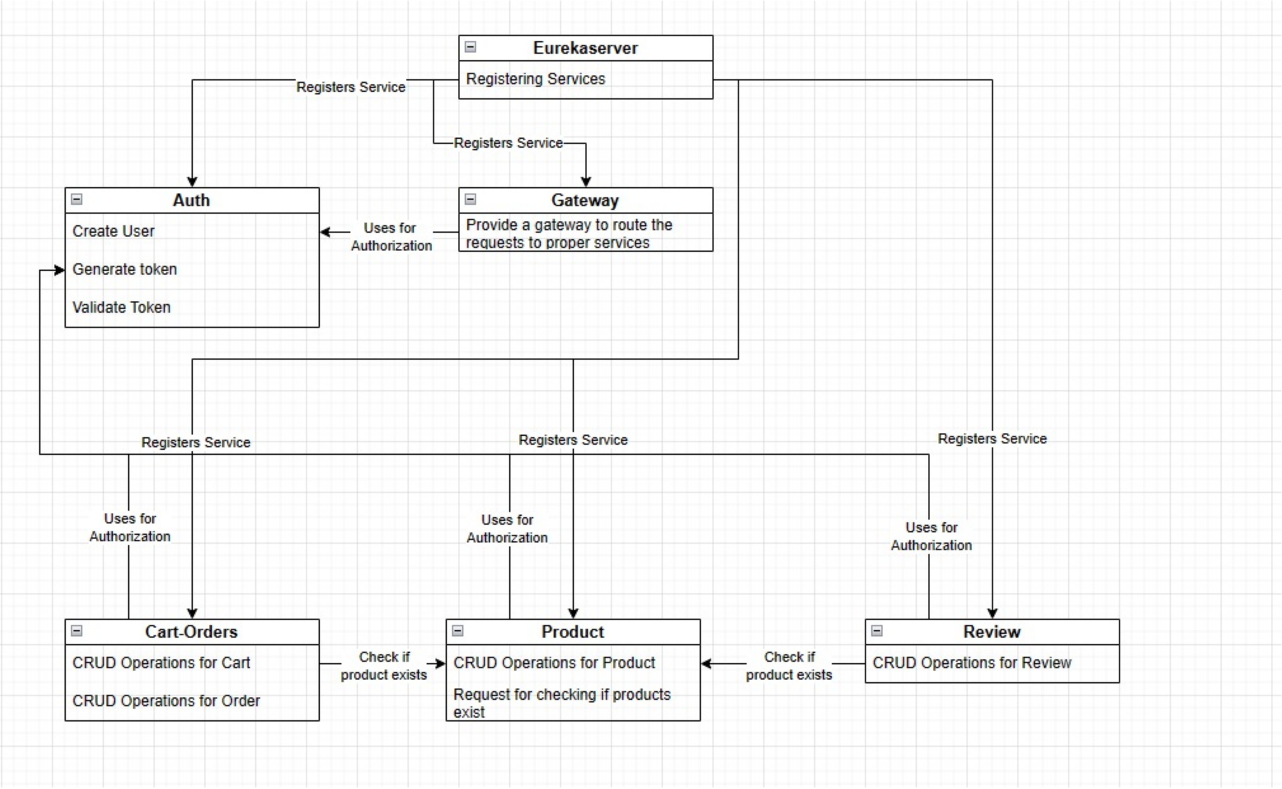
   In the root directory, run the bash script:

   ```
   ./build_docker_images.sh
   ```

3. **Start the services**
   In the root directory, use Docker Compose to start the services

   ```
   docker-compose down
   docker-compose up -d
   ```

Architecture



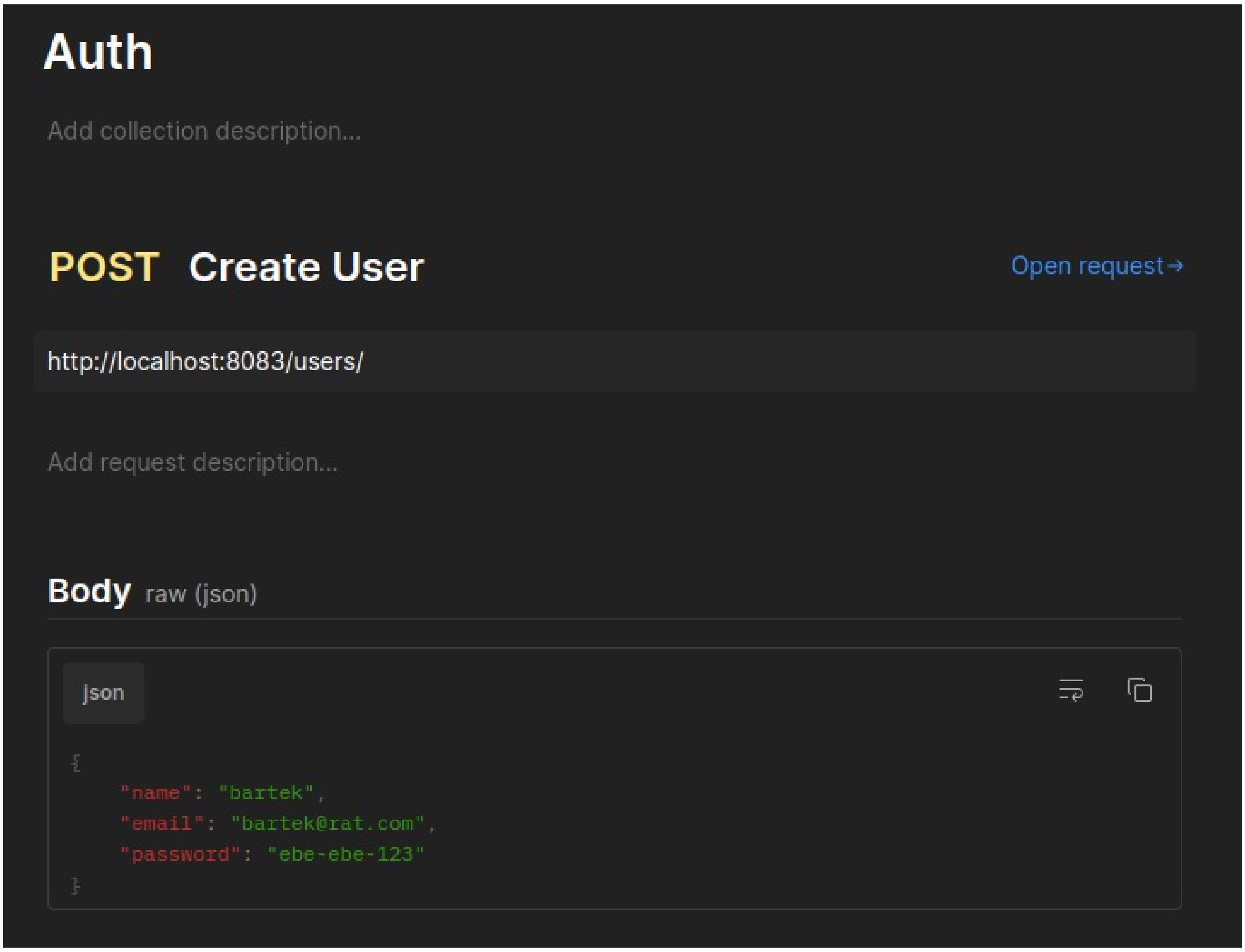
Example endpoints

detailed API documentation for each service is available in .json format

- docs/Auth.postman_collection.json
- docs/Product.postman_collection.json
- docs/Cart-Orders.postman_collection.json
- docs/Review.postman_collection.json

1. Auth service

- create user



Auth

Add collection description...

POST Create User

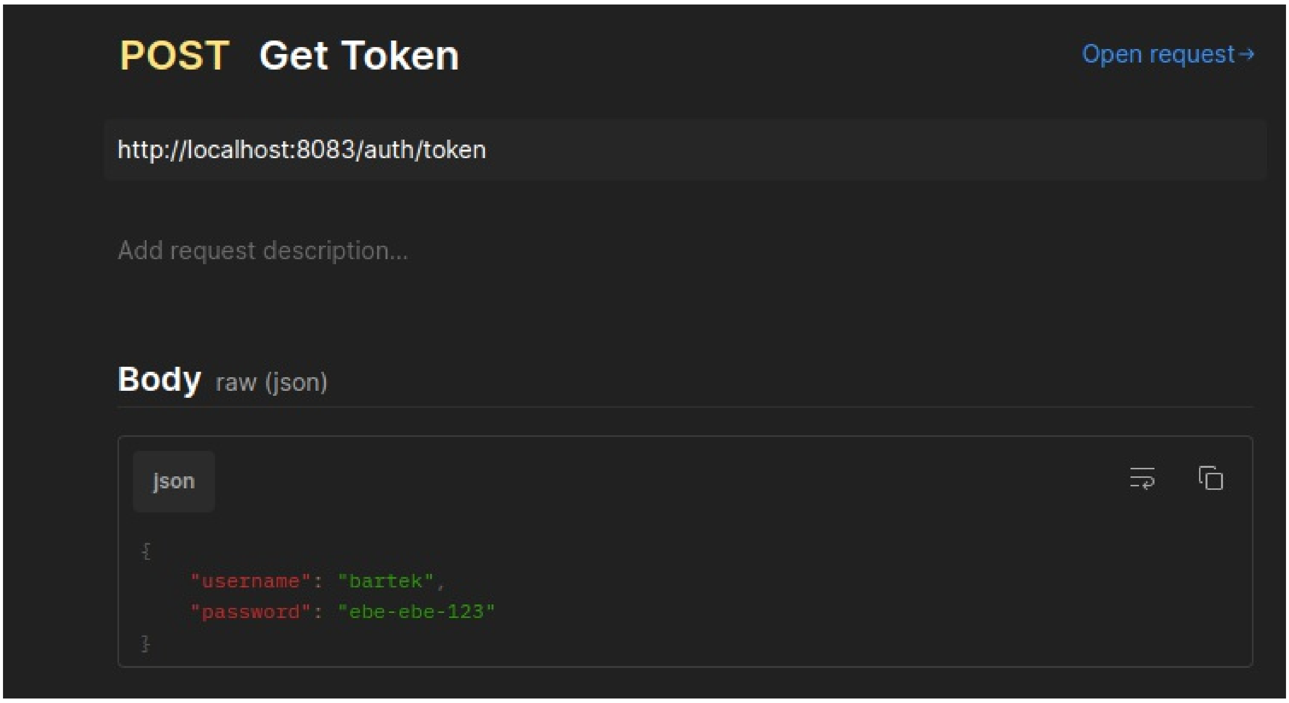
http://localhost:8083/users/

Add request description...

Body raw (json)

```json
{
    "name": "bartek",
    "email": "bartek@rat.com",
    "password": "ebe-ebe-123"
}
```

- get the token



POST Get Token

http://localhost:8083/auth/token

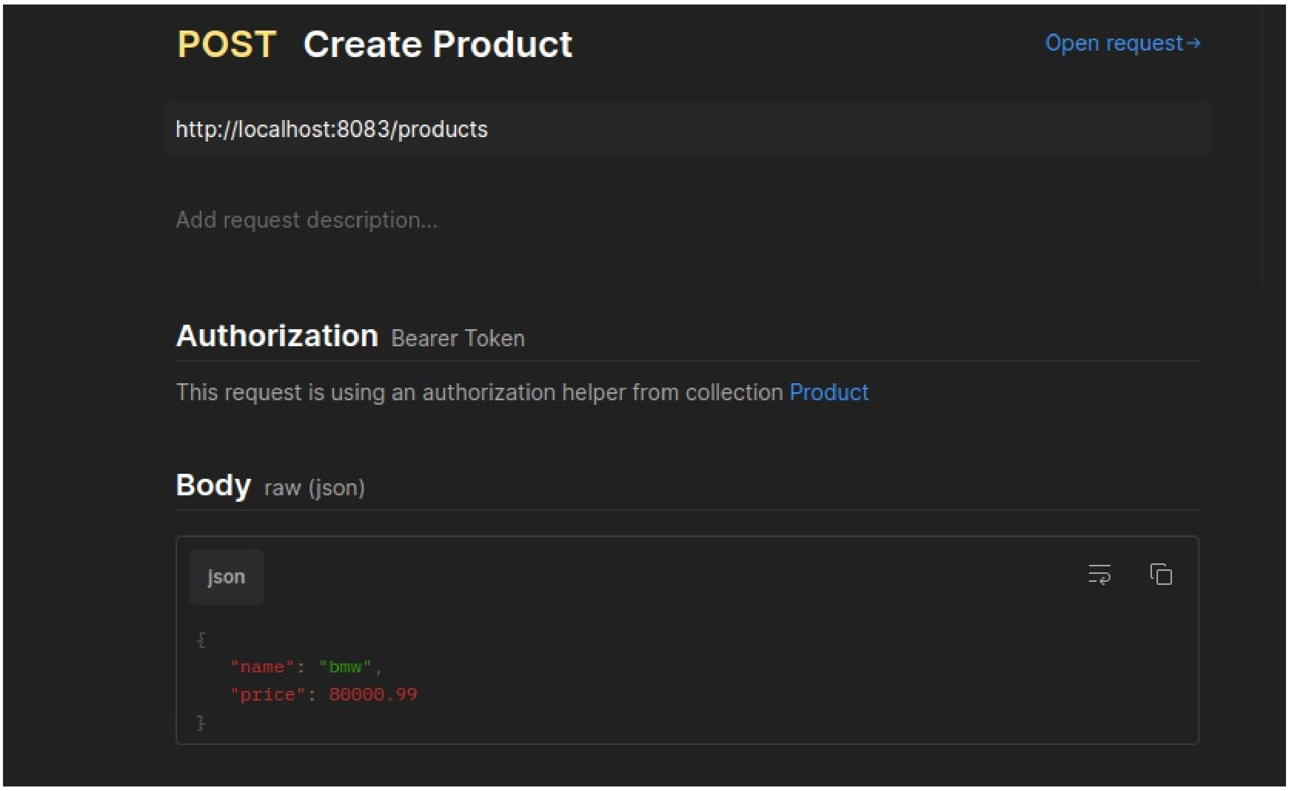
Add request description...

Body raw (json)

```json
{
    "username": "bartek",
    "password": "ebe-ebe-123"
}
```

2. Procuct service

- create product



POST Create Product

http://localhost:8083/products

Add request description...

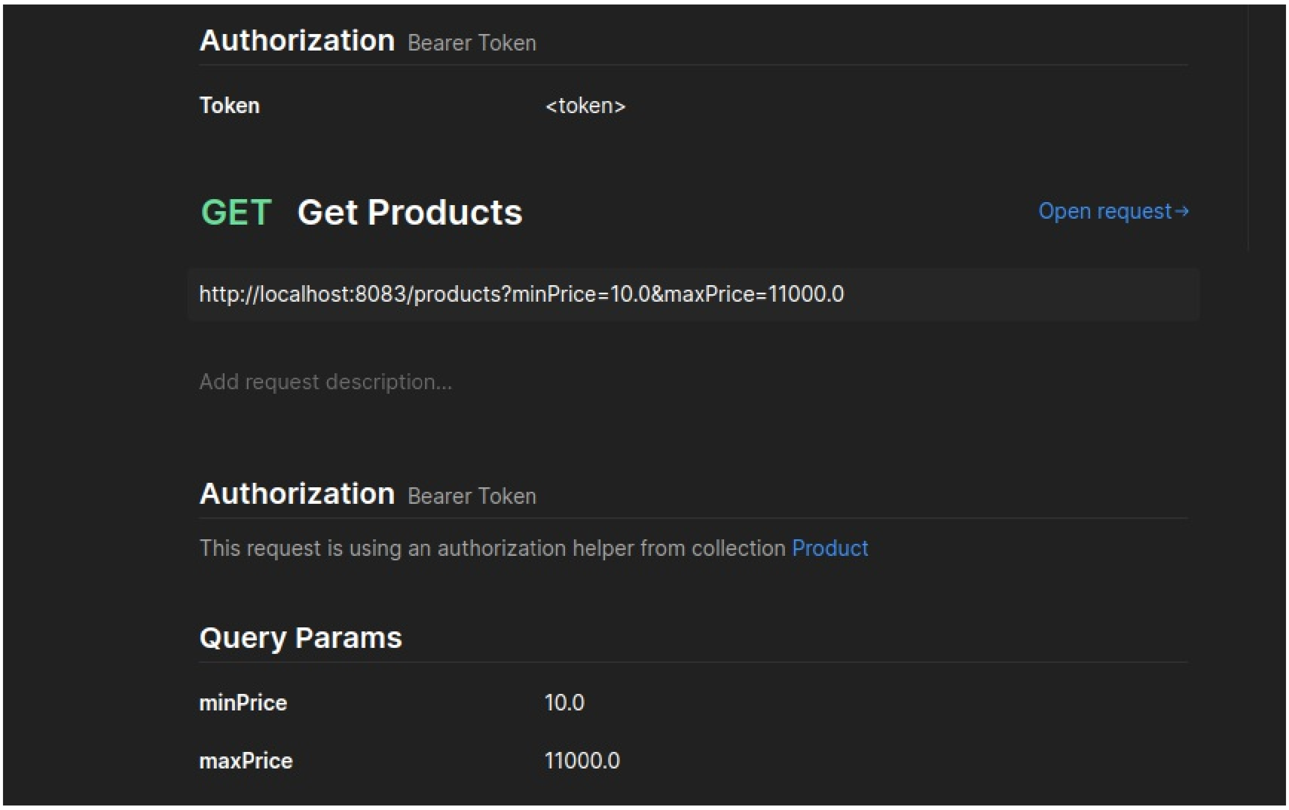
Authorization Bearer Token

This request is using an authorization helper from collection Product

Body raw (json)

```json
{
   "name": "bmw",
   "price": 80000.99
}
```

- filter products



Authorization Bearer Token

Token	<token>

GET Get Products

http://localhost:8083/products?minPrice=10.0&maxPrice=11000.0

Add request description...

Authorization Bearer Token

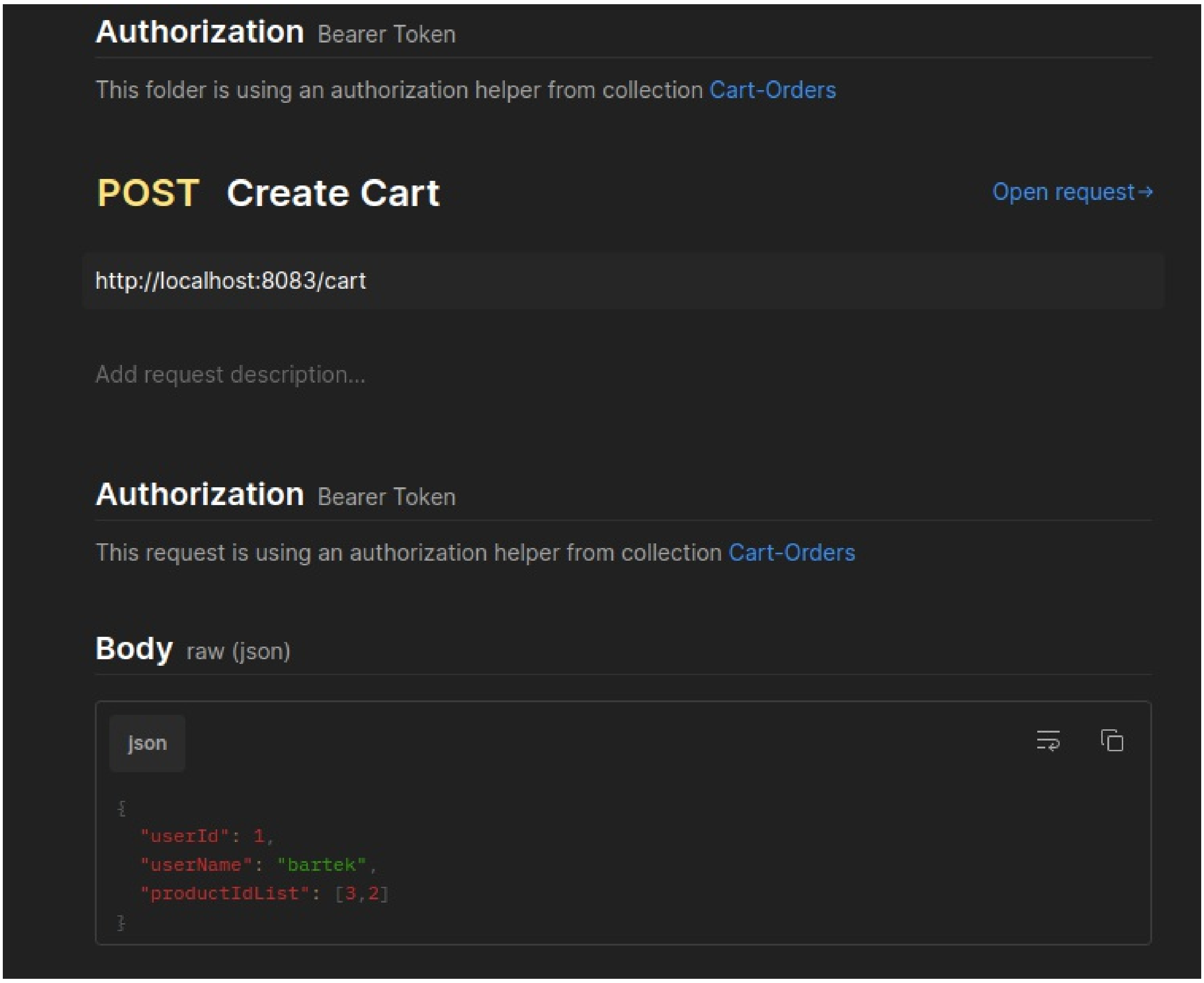
This request is using an authorization helper from collection Product

Query Params

minPrice	10.0
maxPrice	11000.0

3. Cart-Orders service

- create cart



Authorization Bearer Token

This folder is using an authorization helper from collection Cart-Orders

POST Create Cart

http://localhost:8083/cart

Add request description...

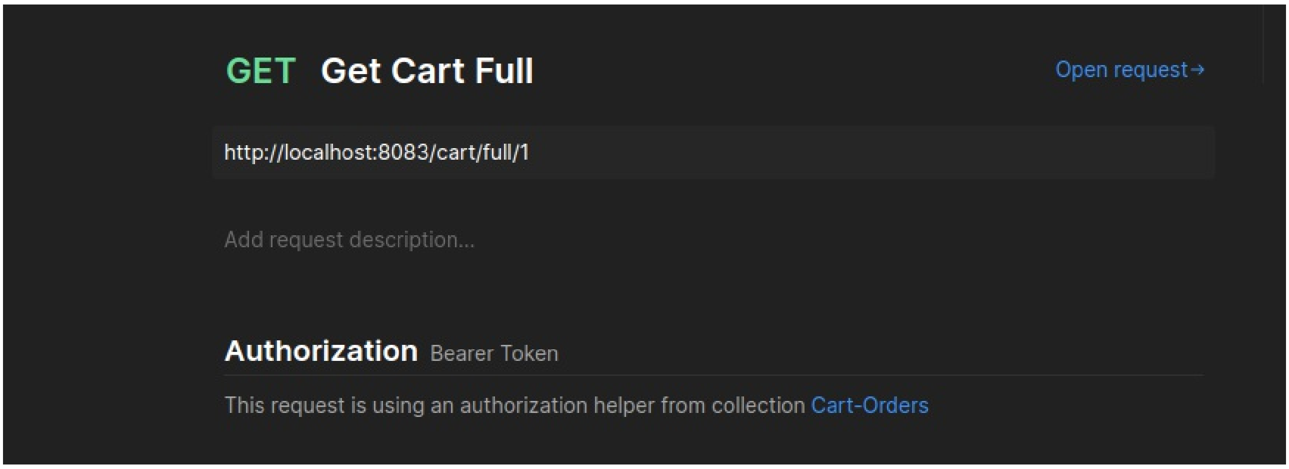
Authorization Bearer Token

This request is using an authorization helper from collection Cart-Orders

Body raw (json)

```json
{
  "userId": 1,
  "userName": "bartek",
  "productIdList": [3,2]
}
```

- get full cart



GET Get Cart Full

http://localhost:8083/cart/full/1

Add request description...

Authorization Bearer Token

This request is using an authorization helper from collection Cart-Orders