

Application

The Space Agency Data Hub

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1. Description

Space agencies store their satellites images (products) in large data hubs. Product Content Administrator manages satellites missions and products of the data hub. Agency's Customers can search and order products.

2. Start-up instructions

1. Unzip file space-agency-tomasz-mosur.zip
2. Run main function from SpaceAgencyApplication.java

3. Database

Application is backed with an in-memory H2 database for ease of implementation and testing. Database Management System is accessible with the following url: <http://localhost:8080/console>
Access data: Username: sa ; password field is blank

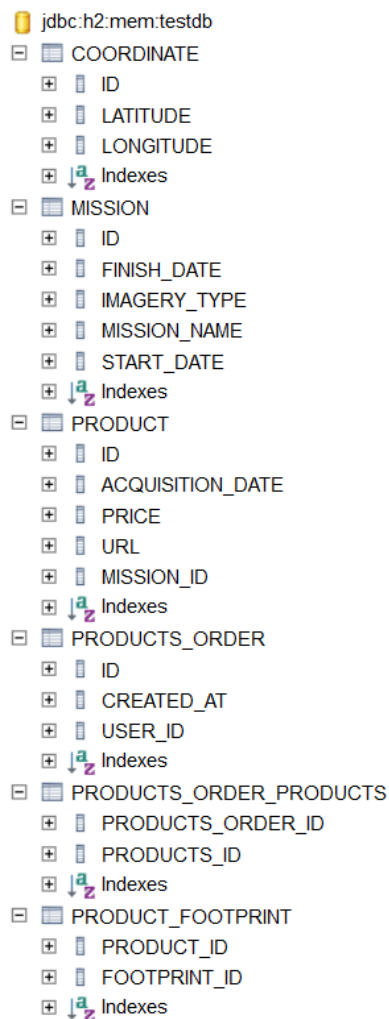


Figure 1 Generated database tables - H2 DBMC

4. Mocked data

Username	Password	Role
customer	1234	CUSTOMER
customer1	1234	CUSTOMER
manager	12345	MANAGER
manager1	12345	MANAGER

Table 2 Mocked users info

When application is initialized, one mission, two products and one order are added to the database.

Mission with name "test" has 2 Products. First with id=1 and second with id=2.

User with username customer has bought one Product with id=1.

Products with id=1 has following footprint:

Coordinate(-1, 1),
 Coordinate(1, 1),
 Coordinate(1, -1),
 Coordinate(-1, -1)

Product with id=2 has following footprint:

Coordinate(-2, 2),
 Coordinate(2, 2),
 Coordinate(2, -2),
 Coordinate(-2, -2)

5. Documentation

Simple REST API Documentation was generated with Swagger2. Documentation is available after launching the application at the following URL: <http://localhost:8080/swagger-ui.html>

The Space Agency Data Hub API Documentation

Work Sample - The Space Agency Data Hub

mission-controller : Mission Controller			Show/Hide List Operations Expand Operations
GET	/missions		getMissions
POST	/missions		createMission
DELETE	/missions/{id}		deleteMission
PUT	/missions/{id}		updateMission
order-controller : Order Controller			Show/Hide List Operations Expand Operations
POST	/orders		orderProducts
GET	/orders/history		getOrdersHistory
GET	/orders/popular/missions		getMostPopularMissions
GET	/orders/popular/products		getMostPopularProduct
product-controller : Product Controller			Show/Hide List Operations Expand Operations
POST	/products		createProduct
GET	/products/		searchProducts
DELETE	/products/{id}		deleteProduct
GET	/products/{id}		getProduct

Figure 3 Generated API for Space Agency Data Hub via Swagger 2