Solution

* Product Catalog Service allows client to create, find by id, list by type and delete product. It supports 3 types of products – personalCare, electronics and groceries
* Product Pricing Service calls Product Catalog Service internally to get product details by id and extract pricing information and sends back to client.

Design

Product consists of 2 micro services(Product Catalog and Product Pricing) interacting with each other.

Product Pricing Service

Product Catalog Service

9000

8000

Get Product by id

H2 DB

H2 DB

Implementation

- Each Micro Service is implemented based on Spring Boot. It uses embedded Tomcat by default.

- Product Catalog Service runs on 8000 port

- Product Pricing Service runs on 9000 port

Instructions

# Method 1(With IDE):

Import extracted projects to IDE to run them as Sprint Boot based standalone applications.

# Method 2 (without IDE):

Make sure that your system is set to use Java SDK(7.0) and Maven(3.2+) to follow below instructions

## Extract the project zip file to properly name root folder say **globomart** for example.

## Go to globomart/ProductCatalog project, Run maven command ‘mvn package’

## Go to globomart/ProductPricing project, Run maven command ‘mvn package’

## Go to root folder and run below commands

## **java -jar ProductCatalog/target/product-catalog-0.0.1-SNAPSHOT.jar**

## **java -jar ProductPricing/target/product-pricing-0.0.1-SNAPSHOT.jar**

Please note that use chrome rest client like ‘postman’ to

- create product and

- query product details as well as

- product pricing

(using demo request and response samples shown below)

Request and Response Samples

Product Catalog Service APIs

**Request:**

POST <http://localhost:8000/v1/catalog/products>

Headers

Content-Type:application/json

Body:

{ "name": "moong dal", "type": "groceries", "price": 134 }

**Response:**

Status:

201 Created

Body:

{

"id": 4,

"name": "moong dal",

"type": "groceries",

"price": 134

}

Headers:

Location: <http://localhost:8080/v1/catalog/products/4>

Products by Type

Request:

GET <http://localhost:8000/v1/catalog/products/query?type=electronics>

Response:

200 OK

Body:

[

{

"id": 2,

"name": "philips hair dryer",

"type": "electronics",

"price": 2222

}

]

Headers:

Content-Type: application/json;charset=UTF-8

Delete Product

Request:

DELETE <http://localhost:8000/v1/catalog/products/1>

Response:

200 OK

Catalog Pricing Service

Return the price for a given product

Request:

GET <http://localhost:9000/v1/catalog/prices/product/3>

Response:

199.0