

Exercise 03 - Handling New Product Events

Required Services

The following services are involved and have to be started before the final exercise validation:

- NotificationSrv (<http://localhost:8010>)
- ProductSrv (<http://localhost:8050>)
- WarehouseSrv (<http://localhost:8070>)

Description

The product management team has decided to establish a new follow-up process when a new product has been added to the DB of the `ProductSrv`. To make their job easier and reduce manual efforts, several automatic actions have to be performed when a new product has been successfully created via `POST http://localhost:8050/products` (`experiment.webshop.products.resources.ProductResource`).

Tasks

The following extensions to the `createProduct()` method (`experiment.webshop.products.resources.ProductResource`) have to be added as a follow up to a successful finish:

1. **NotificationSrv: Add the product to the internal new product DB.** The `NotificationSrv` has an internal DB with new products. Products can be added by invoking `POST http://localhost:8010/new-products` (`experiment.webshop.notifications.resources.NotificationResource`). The payload for this method is the newly created `experiment.webshop.products.api.Product` instance that is returned from the `storeProduct()` method of the `experiment.webshop.products.db.ProductRepository`. Use the provided Jersey `restClient` instance for this. You can copy and adapt one of the existing invocation examples (e.g. the `OrderSrv`'s marketing mail request from exercise 1, task 4).
2. **NotificationSrv: Notify the sales department about the new product.** The `NotificationSrv` provides functionality for this via `POST http://localhost:8010/product-mails` (`experiment.webshop.notifications.resources.NotificationResource`). The payload for this method is an instance of `experiment.webshop.products.api.NewProductMailRequest`. Use the provided Jersey `restClient` instance for this, in the same fashion as for task 1. Below is an exemplary payload (`product` will of course be the newly created product):

NewProductMailRequest example:

```
{
  "type": "NEW_PRODUCT_MAIL",
  "product": {
    "id": 1,
```

```
        "name": "NewTestProduct"  
        "categoryId": 1,  
        "price": 9.99  
    }  
}
```

3. **WarehouseSrv: Stock-up on 10 copies of the newly created product.** As a start, the `WarehouseSrv` needs to have 10 copies of the new product available for purchase. This stock-up process can be initiated by invoking `PUT` `http://localhost:8070/products/{id}/availability?amount=10` (`experiment.webshop.warehouse.resources.WarehouseResource`). Use the provided Jersey `restClient` instance for this, in the same fashion as for task 1 and 2. Since there is no payload (only the URL parameter `amount`), you need to use an empty string payload as a workaround like so:

```
Invocation.Builder request = restClient.target(warehouseSrvUrl).request();  
request.put(Entity.json(""), BaseResponse.class)
```

Validation

When you are finished with all tasks, make sure all required services (see [Required Services](#)) and the exercise validation UI is up and running (if not, execute `exercise-validation/build-and-run-validation-ui.bat`) and then navigate to `http://localhost:5001` (it is important to start from this page, because it will determine which version you are working on). Click on **Exercise 03** and then on **Start Validation**. If every check is successful (`status: true`), pause your stopwatch and notify an experiment admin to write down your time.