

Code assignment for Java candidate.

The main goal is to assess your familiarity with the language, the framework, code quality and organization of the codebase, and use of Spring/Java best practices if possible. Although time to completion will be evaluated you should make functionality and code quality the top priorities.

You need to create a Spring boot REST application from scratch and use Gradle as the built tool (please provide the wrapper to avoid versioning conflicts).

A SQL script is provided to create the starting database, but you need to change it to add support for product attributes, many products can share the same attributes, and even the same attribute values. As an example, color and size can be attributes, while some possible values for the color can be RED, BLUE, GREEN... and for the size XS, S, XL, OSF, etc. each attribute value has a position property (integer), which is unique for a given attribute and product and indicates the sort order of that value for that attribute and product specifically. Make sure the resulting database is in at least 3rd normal form.

On this application you will need to create three REST Endpoints that will communicate with clients using JSON.

First one will accept a Json object that should include all fields needed to create a product (or update if the product name already exists), it should also handle any attributes we want to associate to it, plus any associated SKUs, persist the information on the database and return an appropriate response.

Second endpoint will be used as a scheduled task and should iterate through all the products and SKUs, and update the appropriate inventory values from the following REST endpoint call:

```
POST /profill-rest-api-dev/fulfillment/getInventory HTTP/1.1
```

```
Host: profillds.profillholdings.com:8443
```

```
token: K8TS_5K1M77Q~hu1
```

```
Content-Type: application/json
```

```
Content-Length: 4
```

```
{  
}
```

Third endpoint will accept a product ID and will return the product record with that ID, along with all the related records, as a JSON object.