

Java Assignment 1

Problem Statement:

You're implementing a part of a shopping platform. Design and implement a service that will provide a REST API for **calculating a given product's price and amount**. Products in the system are identified by UUID. There should be the possibility of applying discounts based on two policies – count based (the more pieces of the product are ordered, the bigger the discount is) and percentage based. Policies should be configurable.

Functional Requirements

- Products in the system are identified by UUID
- There should be the possibility of applying discounts based on two policies
 1. **Amount-based** - the more pieces of the product are ordered, the bigger the discount is (e.g., 10 items – 2 USD off, 100 items – 5 USD off etc).
 2. **Percentage-based** - user gets a percentage discount – the more items ordered; the bigger the percentage discount is. (e.g., 10 items, 3% off, 50 items, 5% off etc).
- Policies should be configurable

Non-functional requirements

- Use Java ≥ 17 and frameworks of your choice
- The project should be containerized and easy to build and run via Gradle or Maven.
- Please provide a README file with instructions on how to launch it
- There's no need for full test coverage. Implement only the most essential (in your opinion) tests
- Use the git repository for developing the project and after you're done, send us a link to it
- Make sure we can run the project easily, without any unnecessary local dependencies (e.g., Don't use OS-specific code)
 - Try not to spend more than one or two evenings on the assignment
- You will eventually have a chance to explain your code in the next stage of the interview
- If you must make some assumptions - document them as you see fit. Do the same with the technical assumptions you make.

Good luck!