

Challenge

Write a program in Java (JDK 8 / Maven) and associated unit tests that can price a basket of fashion goods taking into account some special offers.

The goods that can be purchased, together with their normal prices are to be stored in a product catalogue and are currently:

Jacket – £49.90

Trousers – £35.50

Shirt – £12.50

Tie – £9.50

Current special offers:

Trousers have a 10% discount off their normal price this week

Buy 2 shirts and get a tie for half price

The program should accept a list of items in the basket and output the subtotal, the special offer discounts and the final price.

Input should be via the command line in the form

`'Basket item1 item2 item3 ...'`

For example:

`Basket Jacket Trousers Tie`

Output should be to the console, for example:

`Subtotal: £94.90`

`Trousers 10% off: -£3.55`

`Total: £91.35`

If no special offers are applicable the code should output, for example:

`Subtotal: £12.50`

`(No offers available)`

`Total: £12.50`

The code and design should meet these requirements, but be sufficiently flexible to allow future changes to the product catalogue and/or discounts applied (i.e. ideally without the need to add or update Significant Java code).

The code should be well structured, commented, have error handling and be tested.

You may use libraries or frameworks if you feel it enhances

Test Plan Challenge

Given the application described in **The Challenge**, write the following documents:

1. A set of formal acceptance criteria for the application, both functional and non-functional
2. A set of test cases that will prove the acceptance criteria have been met. These may include additional cases
3. Optionally, write the test cases in Gherkin with each different feature of the Application in its own feature file

Note

You do not need to have implemented The Challenge to complete the Test Plan Challenge.