

Software Engineer Smart Shopping Cart Problem

ADP

Overview Engineers at ADP spend the majority of their time developing production code. As such, code quality and design fundamentals are critical to success here. The following problem is intended to serve as the basis for the remainder of the interview process. Please devote some time to providing us with an implementation which reflects your ideals of code quality and proper unit testing.

During the on-site interview we will make reference to this problem and your solution. Please be prepared to conduct a more in-depth analysis when you arrive. This will include discussing implications for more real life scenarios; addressing issues such as scaling, configurability, validation, and varying inputs.

Problem Description

Build a core java application to checkout counter for an online retail store that scan products and generates an itemized bill.

The bill should also total the cost of all the products and the applicable sales tax for each product.

The total cost and total sales tax should be printed.

Sales tax varies based on the type of products.

- Category A products carry a levy 10%.
- Category B products carry a levy 20%.
- Category C products carry no levy.

The Solution should address the following aspects.

- All Junit test cases.
- Use design methodologies-object oriented, Test Driven.
- Self-sufficient project that can be build, deployed.
- Self-define xml/json for categories A, B and C and used in application.
- Program should be runnable independently.