Developers Test

Part 1

PSDDOU

Introduction

You are writing some code to generate a bill including a service charge for Café X so the customer does not have to work out how much to tip. The customers do not know how much to tip and staff need tips to survive.

Below are a number of exercises. Please attempt these exercises in the order they appear. Each exercise contain a number of stories to be developed. You may find additional information, that you need to take into consideration, included with some exercises.

When developing the stories please:

- Use TDD
- Use Java
- Use Git with tagged commits

Please also adhere to the following:

- Do not read ahead
- Complete the stories in order
- Upon completion of a story, commit that work with a tag (e.g. "after Story 2")
- Build the simplest solution that meets the requirements

Exercise 1 – Standard Bill

(25 Minutes)

Story 01

As a Café Assistant.

When a customer requests to purchase an item or items from the menu.

I want to be able to enter the individual item the customer wishes to purchase into a list of the items to be purchased.

So that I can make a sale.

Additional information:

Cafe X menu consists of the following items with the shown prices:

- Cola - Cold drink- 50p
- Coffee - Hot drink- £1.00
- Cheese Sandwich - Cold food- £2.00
- Steak Sandwich - Hot food- £4.50

Story 02

As a Café Assistant.

When I have entered the individual items a customer wishes to purchase as in Story 01.

I want to find out the price of each item and the total price of the items that I have entered.

So that I can charge the customer the correct price for his/her purchase and for the customer to see the amount he/she is charged.

Exercise 2 – Service Charge

(30 minutes)

Story 04

As a Café Assistant.

When a food item appears on the list of items to be purchased by a customer.

I want a service charge that is 10% of the total bill to be calculated.

So that the customer and I know the service charge.

Story 05

As a Café Assistant

When a hot food item appears on the list of items to be purchased by a customer.

I want a service charge that is 20% of the total bill to be calculated.

So that I and the customer can see the service charge.

Story 06

As a Café Assistant.

When a service charge is calculated.

I want the value of the service charge to be rounded to two decimal points.

So that it is possible to make payment with the currency in circulation.

Story 07

As a Café Owner

When a hot food item appears on the list of items to be purchased and 20% service charge is applied.

I want the maximum value of the service charge to be limited to £20; i.e. if the calculated service charge exceeds £20 then the service charged to the customer is limited to £20.

So that the customer is not charged excessively for the service.

Story 08

As a Café Assistant.

When a service change is calculated.

I want the value of the service charge to be added to the total of the items purchased, to determine the total price to be paid by the customer. And I want the bill to be itemised as follows:

- The price of each item purchased to be shown.
- The total price of the items that were purchased.
- The service charge that has been added to the bill
- The total price that the customer needs to pay.

So that I know how much to charge the customer.

End of test.