Exercise 09a | Create and Adapt Class

Objective

By the end of this exercise, you will be able to create and adapt Classes from the now complete TestSheet 1.

Why is this important?

Classes greatly reduce the amount of work required to create a new TestSheet. They can also be adapted to allow a greater variety of uses in other TestSheets.

Instructions

1. In the "**Classes**" Folder, create a Sub-Folder named: "**Exercise 9a + 10c Create and Adapt Classes**". ☐

Context

Now, we need to start thinking about our next TestSheet "Calculate Payment Fee". The aim of this TestSheet is to check that any additional charges are only levied when the payment methods "Cash on Delivery" or "Check / Money Order" are used.

Many of the elements from TestSheet 1 can be used in this new TestSheet. Therefore, Classes can be created from these reusable elements.

After creating the Classes, it will have to be taken into account that in the previous TestSheet, payment methods were not the test focus. Therefore, only the StraightThrough Instance for Visa Card was necessary. Now, however, the other types of payment methods need to be added to the Class:

- Credit Card – Master Card
- Credit Card – Discover
- Credit Card – American Express
- Purchase Order
- Cash on Delivery

The Class will then need to have the appropriate combinations added as well as the appropriate Values.

The additions to the Class will not affect the original TestSheet as the StraightThrough Instance has already been selected. Unused Instances in a TestSheet are not a problem.

As well as the Values for the different Credit Cards for which Attributes and Instances already exist, an additional Attribute with relevant Instances will need to be created for the Purchase Order number.

2. Navigate to the TestSheet Folder "**Exercise 8 Integrate New Attribute**". Navigate to the "**Customer**" Attribute (*Precondition>>Customer*). Drag and drop the "**Customer**" Attribute into the "**Exercise 9a + 10c Create and Adapt Classes**" Class Folder to create a Class. ☐

3. Navigate to and expand the "**Checkout**" Attribute. Drag the following Attributes into the "**Exercise 9a + 10c Create and Adapt Classes**" Class Folder to create Classes:
   - Billing Address
   - Shipping Address
   - Shipping Method
   - Payment Method

   ☐

4. Navigate to the Class "**Payment Method**". Add the Attribute: "**Purchase Order Number**". Add the Instances:
   - N/A (StraightThrough)
   - 123456 (Valid Inner)

   ☐

5. Navigate to the Attribute "**Credit Card Information**" (*Payment Method>>Credit Card Information*) and add the Instances:
   - Master Card (Valid Inner)
   - Discover (Valid Inner)
   - American Express (Valid Inner)
   - N/A (Valid Inner)

6. Navigate to the Attribute "**Card Type**" (*Payment Method>>Card Type*) and add the Instances:
   - Master Card (Valid Inner)
   - Discover (Valid Inner)
   - American Express (Valid Inner)

7. Navigate to the Attribute "**Card Number**" (*Payment Method>>Card Number*) and add the Instances:
   - 5468560510822353 (Valid Inner)
   - 6011550865535692 (Valid Inner)
   - 372115991558863 (Valid Inner)

8. Focus on the Class "**Payment Method**" and add the following Instances:
   - Credit Card | Master Card (Valid Inner)
   - Credit Card | Discover (Valid Inner)
   - Credit Card | American Express (Valid Inner)
   - Purchase Order (Valid Inner)
   - Cash on Delivery (Valid Inner)

9. Focus on the Attribute "**Credit Card Information**". Add the Values from the drop-down boxes where the Instances intersect the Attributes as per the table below:

	Instances			
Attributes	**Credit Card | Master Card**	**Credit Card | Discover**	**Credit Card | American Express**	**N/A**
Credit Card Information:				
Card Type	**Master Card**	**Discover**	**American Express**	
Card Number	**5468560510822353**	**6011550865535692**	**372115991558863**	
Expiration Date	**Expires in two years**	**Expires in two years**	**Expires in two years**	
Card Code	**123**	**123**	**123**	

10. Focus on the Class "**Payment Method**". Add the Values from the drop-down boxes where the Instances intersect the Attributes as per the table below:

	Instances				
Attributes	**Credit Card | Master Card**	**Credit Card | Discover**	**Credit Card | American Express**	**Purchase Order**	**Cash on Delivery**
Payment Method:					
Credit Card Information	**Master Card**	**Discover**	**American Express**	**N/A**	**N/A**
Purchase Order Number	**N/A**	**N/A**	**N/A**	**123456**	**N/A**

TestSheet 2 | Calculate Payment Fee Overview

Business Context "Calculation of Payment Fees"

Another important part of online business is getting the money for the goods that are sold. There are, therefore, a multitude of different payment methods provided, some free of charge, some with a charge applied.

In our DemoWebShop, we need to test if the payment fees are correctly applied. The business department has supplied the following detailed Requirements of this functionality:

Payment methods

There are four payment methods available for our customers:

Credit Card – this is the standard variant

- Purchase by Credit Card is free of any fees for the customer
- 4 different Credit Card types may be used
    - ◊ Visa – this is the standard variant
    - ◊ Master Card
    - ◊ Discover
    - ◊ American Express

Purchase Order

- This is free of any fees for the customer
- A purchase order number is required

Cash on Delivery

- A fee of USD 7.00 applies

Check / Money Order

- A fee of USD 5.00 applies

Please note, Lesson 10 will further demonstrate how these different payment fees are applied at the different levels within the TestSheet.

Exercise 09b | Use Classes

Objective

By the end of this exercise, you will be able to create a TestSheet from the modified Classes.

Why is this important?

Classes help to create TestSheets quickly and efficiently.

Instructions

1. Within the TestCaseDesign Folder "**TDS1_TestCaseDesign**", create a new Folder named "**TestSheet 2 Calculate Payment Fee - Tool supported Creation of Instances**". ☐
2. Within the TestCaseDesign Folder named "**TestSheet 2 Calculate Payment Fee - Tool supported Creation of Instances**", create a Folder named "**Exercise 9b Build Structure - Use Classes**". ☐
3. Within the Folder "**Exercise 9b Build Structure - Use Classes**", create a TestSheet named "**Calculate Payment Fee**". ☐

Context

The basic structure of this TestSheet is very similar to the "Calculate Shipping Costs" one. There is one main difference however: in the first TestSheet, the type of product ordered directly influenced the type of shipping costs applied. Therefore, the product choice needed to be included in the "Process" Attribute. In this TestSheet however, the product ordered is not relevant; a product simply needs to be ordered to incur a payment. Therefore, the "Product" Attribute is a "Precondition" step and not a "Process" step. The only "Process" steps are the "Checkout" Attributes.

4. Create the **Attribute** structure for the TestSheet "**Calculate Payment Fee**" as per the table below: ☐

Administration (Business Relevant – No)

- Test Designer
- Contact Person (Business)
- Test Stage
- Comment

Precondition

- Class "Customer"
- Class "Product"

Process

- Checkout
  - ◊ Class: "Billing Address"
  - ◊ Class: "Shipping Address"
  - ◊ Class: "Shipping Method"
  - ◊ Class: "Payment Method"

Verification (Business Relevant – Result)

- Message
- Order Details
  - ◊ Shipping Cost
  - ◊ Total Price

4. Create the Attribute structure for the TestSheet "**Calculate Payment Fee**" as per the table below:

Sub-Attribute	Instances
Test Designer	**Max Methdology**
	Steven Design
Contact Person	**Peter Business**
	Carl Business
Test Stage	**Regression**
	Smoke
	One Time