Controller Class

WholesaleMain

Responsibilities:

- Contains the program's main method
- Creates instance of TransactionSystem
- Creates instance of SystemInputOutput
- Calls TransactionSystem's initialize method using the instance of SystemInputOuput as parameter

Collaborators:

TransactionSystem SystemInputOutput

Abstract User	Child Classes: Customer, Administrator
Responsibilities:	Collaborators: Customer Administrator

Product

Responsibilities:

- Stores the name, price, and stock quantity of each product
- getName, getPrice, getStock methods
- setStock method for updating stock quantity
- setPrice method for updating price

Collaborators:

Customer Administrator InventorySystem

Customer

Parent Class: User

Responsibilities:

- Inherits username and password from User's constructor
- Each instance of customer has a shopping cart; a hashmap
- add method which adds an integer quantity of a product to a customer's shopping cart
- cartTotal method which returns the total cost of all the products in a customer's shopping cart

Collaborators:

InventorySystem Product

Administrator Responsibilities: Inherits username and password from User's constructor Administrators are able to add products to inventory, modify product prices and stock quantities. Parent Class: User Collaborators: InventorySystem Product

Use Case Class

InventorySystem

Responsibilities:

- Store every product available in an inventory list
- Setter and getter methods for inventory
- createCustomer, createAdministrator, and createProduct methods
- productList method which returns a list of names of products
- availability method which checks if a product name is among the list of product names in the inventory
- findProduct method which returns the product associated with a provided product name
- addToCart method which adds a product of a specified quantity to a customer's cart if that product is available and the quantity specified is less than or equal to the product's stock quantity
- customerTotal method which returns a customer's total cost
- addToInventory method where an administrator adds a specified quantity of a product to the inventory if the inventory does not contain the product; otherwise updates the stock quantity of the product.

Collaborators:

Product
Customer
Administrator
TransactionSystem

Use Case Class

Membership

Responsibilities:

- Membership number, valid date, expire date, mobile number, payment methods and shipping address.
- discount method which gives a discount to a customer if the customer has a membership and their shopping cart is nonempty

Collaborators:

TransactionSystem

Controller Class

TransactionSystem

Responsibilities:

- Initialize method which takes InputOuput as parameter
- Decides if a user is a customer or an administrator
- Instantiates a Promptlterator
- Instantiates an InventorySystem
- Takes user inputs and makes InventorySystem create a customer or administrator
- Takes user inputs and makes InventorySystem add products to shopping cart if user is a customer, and adds products to inventory if user is an administrator

Collaborators:

InputOutput
PromptIterator
InventorySystem

Interface Adapter (Gateway Class)

Promptlterator

Responsibilities:

- Constructor takes a file as parameter
- Reads prompts from the file and adds prompts to a list of strings
- hasNext and next methods to iterate through list of prompts

Collaborators:

TransactionSystem

Interface Adapter

Implements InputOutput **SystemInputOutput** Responsibilities: Collaborators: Implements InputOuput interface InputOuput Implements getInput method which gets user input Transaction System Implements sendOutput method which sends output to user

Interface Adapter

Interface InputOutput Collaborators: Responsibilities: getInput method without implementation SystemInputOutput sendOutput method without implementation **Transaction System**