### **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

# **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

# **User Interface (Frameworks and Drivers)**

SystemInputOutput	Implements InputOutput
Responsibilities:	Collaborators: InputOuput Transaction System

# **User Interface (Frameworks and Drivers)**

Interface InputOutput		
Responsibilities:	Collaborators: SystemInputOutput Transaction System	