Bryant Palomino

Java CIS-18A

Dr. Nyguyen

Course Project Documentation

The purpose of my project is to operate as self-serve menu that allows the user to select which option, he/she would like to order. After the user finishes ordering they proceed to the check-out window. This window displays the total value of the item ordered, tip input, and as well as input for credit card information. This project is intended to be utilized in a bar business. The menu displays a list of drinks along with the ingredients and price. The practicality of having a self-serve machine in a noisy, dimly lit bar environment will greatly improve the speed of service, customer transaction, and instill costumer confidence when they interact with the user-friendly interface that provides a full description of what they are purchasing.

The program itself its broken down like so, AfternoonDelight, AppleFlower, BlackBerryBliss, CocoRoss, MioAmoreMargarita, and UpAllNight are all subclasses of the Drink class.  They represent each of the different drinks that exist on the menu.  If you wanted to add new Drinks to the list, you would create a subclass of Drink and provide the details in that new class. DrinkAction is an interface that provides some of the functionality to the abstract class Drink.  It represents how Drinks can be used in this menu. Order is a class that contains all of the different drinks in one order and is provided functionality in the interface OrderAction class. OrderDisplay, BarMenuApp, and BarMenu provide the GUI for the project.  BarMenuApp is the main driving program that creates the BarMenu object to be shown to the screen.  It will contain all of the different Drinks that are available to the system.  The customer states how many they want, and an Order is placed to the system which creates the OrderDisplay window. The user enters in the data for their payment and they set the amount of tip and then it successfully places the order in.

Pseudocode

**Order**

Function GetTotal ( tip : Float )

Set variable i to 0

Set variable total to 0.0

WHILE i < size of order

Set total to total + drink’s total cost

Set i to i + 1

RETURN total + tip

Function Add ( drink : Drink )

Add drink to the list

Function GetDrink ( i : Integer )

RETURN Go to i-th drink location in list

Function GetSize ( )

RETURN Get the size of the list

**BarMenu**

Function CreateBarMenu ( )

Call CreateMainPanel()

Call CreateButtonPanel()

Add all panels to the screen.

Show the screen to the user.

Function CreateMainPanel ( )

Create drink input text fields list.

FOR all drink text fields.

Create the text field

Set them all to start with “0”.

FOR all i drink types

Create the specified drink using CreateDrink( i )

Create name label for this drink.

Create description label for this drink.

Add name label, description label and text fields for this drink to the screen.

Function CreateButtonPanel ( )

Create Clear Button

Create Submit Button

Function CreateDrink( index : Integer )

IF i = 0

RETURN Create AfternoonDelight Drink

ELSE IF i = 1

RETURN Create AppleFlower Drink

ELSE IF i = 2

RETURN Create BlackBerryBliss Drink

ELSE IF i = 3

RETURN Create CocoRose Drink

ELSE IF i = 4

RETURN Create MioAmoreMargarita Drink

ELSE IF i = 5

RETURN Create UpAllNight Drink

ELSE

RETURN NULL Drink

Function ActionPerformed ( e : Event )

IF ClearButton was pressed

FOR each drink text field

Set text field to start with “0” quantity.

ELSE IF SubmitButton was pressed

Create Order drinkOrder

FOR each drink available

Set quantity to the integer value in text field

IF quantity is not a number

Error and end

ELSE IF quantity < 0

Error and end

ELSE IF quantity > 0

Add this quantity of Drink to drinkOrder list

ELSE

Do nothing

IF drinkOrder has at least 1 drink

Go to OrderDisplay Window

ELSE

Error and end

ELSE

Do nothing

**OrderDisplay**

Function CreateOrderDisplay ( )

Call CreateMainPanel()

Call CreateCreditCardPanel()

Call CreateButtonPanel()

Add all panels to the screen.

Show the screen to the user.

Function CreateMainPanel ( )

Create drink input text fields list of size 1 larger than itself (due to totals/tips).

Create drink costs text fields list of size 1 larger than itself (due to totals/tips).

FOR all drink text fields.

Create the input text field

Set them all to start with “0”.

Create the costs text field

Set them all to the cost of each drink (with quantity/price).

Create the tip text field

Set the tip text field to 0.00

Create the total text field

Set the total to the total cost + tip.

FOR all i drink types

Create the specified drink using CreateDrink( i )

Create name label for this drink.

Add name label, and input/cost text fields for this ordered drink to the screen.

Function CreateCreditCardPanel ( )

Create name text field

Create credit card number text field

Create billing text field

Create cvv text field

Create exp date text field

Add all text fields to the screen

Function CreateButtonPanel ( )

Create Clear Button

Create Submit Button

Function ActionPerformed ( e : Event )

IF ClearButton was pressed

Set text field for tip amount to start with “0” quantity.

ELSE IF SubmitButton was pressed

Set tip to the double value in text field

IF quantity is not a number

Error and end

ELSE IF quantity < 0

Error and end

ELSE IF any text field is empty

Error and end

ELSE

Submit the order

State the success of the order

ELSE

Do nothing