CS203 Project Report
Homework 4 Coffee Shop Application
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Introduction

So for this project, we were tasked with creating a software solution that manages coffee orders as well as customer information. The primary objective when creating this program was to utilize and implement OOP principles and topics as well as the Java Graphical User Interface. The purpose of the interface is to make it interactive and simple enough that anyone could order coffee using the application we developed.

Code Explanation

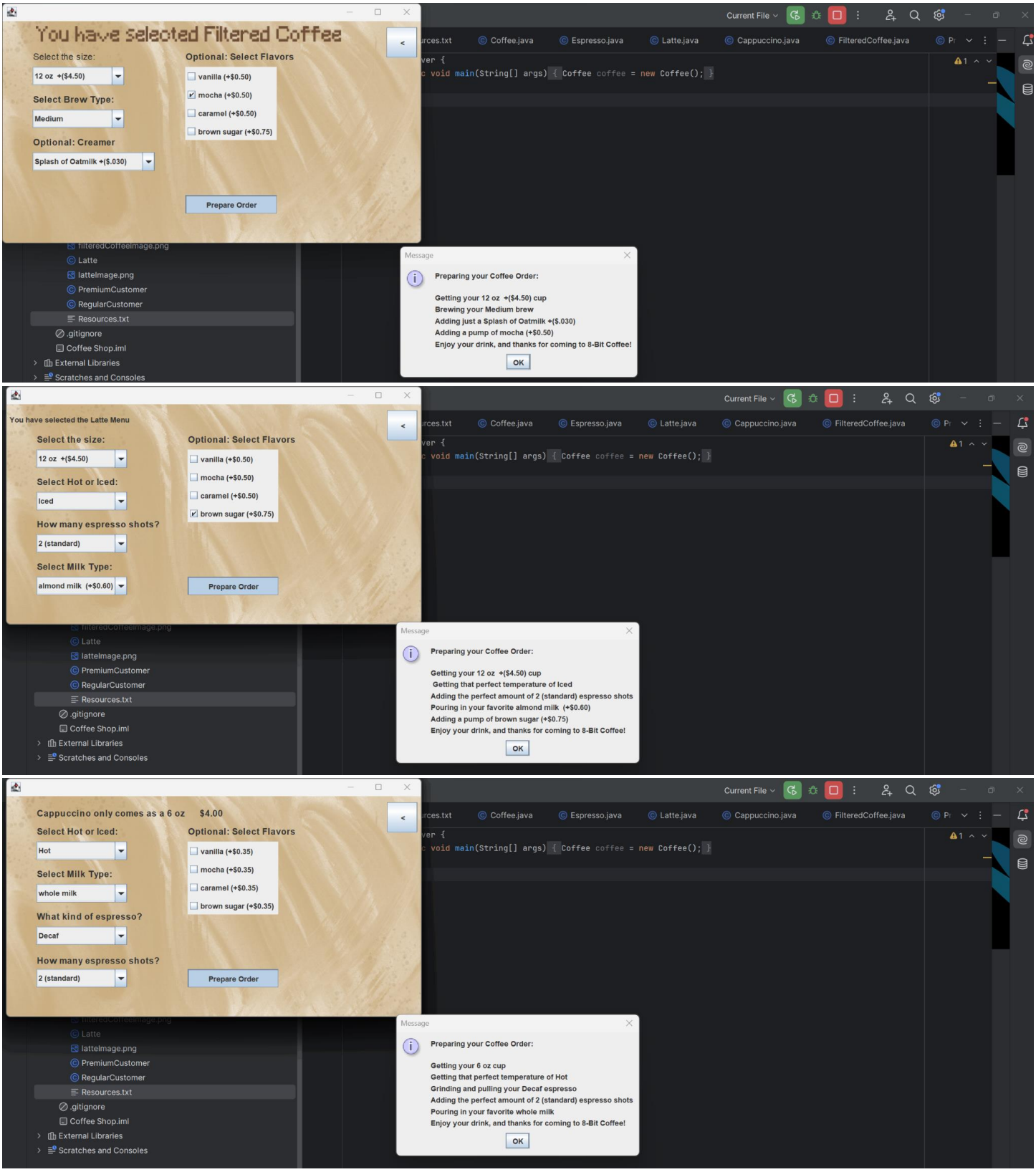
Alaura:

So for my portion of the project, I mostly worked on creating the coffee menu itself. I created a "Coffee" class which sets up the Java GUI and welcomes customers to 8-Bit Coffee and to choose either the "Espresso" menu or the "Filtered Coffee" menu. Both of these sub-classes contained variables and methods related to their parent class, "Coffee" as well as implemented their own specific attributes such as espresso type and brew type. Within the "Espresso" class, I also created two more classes that extend it, which were "Latte" and "Cappuccino". Both of these classes inherited from their parent class, "Espresso" as well as the "Coffee" class as it is the parent of the espresso class. The "Filtered Coffee", "Latte" and "Cappuccino" classes utilize a variety of button types to allow customers to make selections based on what they wish to order given their specific type of coffee. When a customer clicks on the "Prepare Order" button, the "prepare" method from the "Coffee" class is then invoked to display the preparation of the specific order. The "prepare" method utilizes polymorphism by displaying different outputs given the different subclasses of the "Coffee" class. So, the "prepare" method makes it to where each ordering class displays different instructions based off of the coffee order to the customer. In order to make the menu more aesthetically pleasing, I created the background png as well as the two coffee png images utilizing the "Procreate" app on my Ipad. I wanted to make the application not only provide a lot of customization of drinks, but also be engaging and enjoyable to the customers. However, I did not create the word fonts that are used as I used an online generator to create those.I wanted to highlight the previous because I'm proud of myself for creating and utilizing more aspects than just the code for this project. Within my code, I attempted to break up the code into sections to make it more readable and clear as well as utilizing some comments here and there. There are commented out code that were used to check runnability and are left for debugging purposes. There are some tweaks within each class made by my group member in order for his portion of the code to blend with mine.

La'Darius:

On the Customer sides, I created the abstract customer class that includes the premium customer class and regular class. In the premium customer class, I implemented a method call premium customer jbutton whereas once the button is pressed, it will show a display where the premium customer will get a 10 percent discount. I also created some implementation that calculate the prices included added feature. Once the customer place their basic information such as their name, address, and phone number, the implementation began by storing their information in a csv file and will track their shopping by gauging the selection the customer chooses. I also created a checkout class that will review the customer order.

Result



The Cappuccino Image shows how no selection of flavors is optional and is not necessary for ordering

We both used GitHub in order to share and update code as we went. The link for the github is the following: https://github.com/AlauraAbbigail/Coffee-Shop/tree/main

References

Some references were related to previous assignments such as lab ten, seven, and eight. We also used a few youtube resources to get common functionality of certain Java Swing methods.
Here is the aforementioned online generator for the fonts:
https://fontmeme.com/pixel-fonts/
Here are the youtube resources:
https://www.youtube.com/watch?v=HgkBvwgciB4&ab_channel=BroCode
https://www.youtube.com/watch?v=EAxV_eoYrIg&ab_channel=BroCode
https://youtu.be/FR2UptJyaSM?si=IvdiaBalKrTqwJiM