

CMPSC-221: OOP for Web

Homework 10: Pete's Pizza - Spring 2019 (100 points)

Due: Monday, March 25th at 11:59pm

Objectives

By completing this assignment, you will:

- Gain experience working with additional JavaFX GUI components

Assignment

You must write a GUI app for Pete's Pizza (a fictitious pizza shop). The GUI must allow for the cashier to select the attributes of the pizza and then add it to the cart. When the order is done, the cashier clicks a button and the entire order is printed out to the console along with the total cost.

Statement.txt (5 points)

As with all assignments you are required to fill out a `statement.txt` file and submit it with the rest of your code.

Design (25 points)

1. What are some things to consider when building the GUI, list three and describe each of them in a few sentences. Hint: your answer should reference the design principles we talked about last week.
2. What objects might we want to build to make the program more manageable?
3. What kinds of data structures would we want to take advantage of?
4. In class on Wednesday last week, MVC was discussed, how will this factor into your thinking when writing your solution? How does your answer to question two fit in to this?

5. Sketch your GUI and describe how that sketch meets the criterion you set in question one.

Implementation (60 points)

Pete's Pizza needs a GUI that allows for the following selections:

1. Size: Small, Medium, and Large. A small pizza is \$10, medium is \$11, and large is \$12.
2. Veggies: Peppers, Onions, Mushrooms, Olives, or Banana Peppers. Each veggie topping is \$0.50 extra. Zero or more of these may be put on a pizza.
3. Meats: Ham, Pepperoni, Sausage, Salami, Chicken, Steak. Each meat is \$2.00 each, if the user selects more than two, they are \$1.50 each. Zero or more of these may be put on a pizza.

There also needs to be the following GUI elements:

1. "Add to Cart": This will add the pizza to the cart. The GUI is also reset to the initial values.
2. "Done": This will finish the order. At this point, the order is printed to the terminal along with the cost of each item and the grand total.

Sample Output

A sample output when the order is done might look something like this:

```
1 Small Pizza
    Add Peppers
    Add Onions
Food Total: $11.00
Tax:      $0.66

Final Total: $11.66
```

Style (10 points)

As with all assignments, ten points of your grade are connected to how well you follow the style guidelines detailed on Canvas.

Notes

- Sales tax in Erie, PA is 6%.
- Pineapple is **never** an acceptable pizza topping. :)

Submission

Please submit all files prior to the deadline listed above. Your main class should be called `PizzaApp.java`.

Implementation Grading

20 points: The GUI is easily understood

5 points: The GUI has all the correct veggie toppings

5 points: The GUI has all the correct meat toppings

15 points: The “Add to Cart” button works as specified

10 points: The “Done” button works as specified

5 points: The output to the terminal is correct