

JAVA PROGRAMMING COURSE (SWE2023)

FALL SEMESTER 2022

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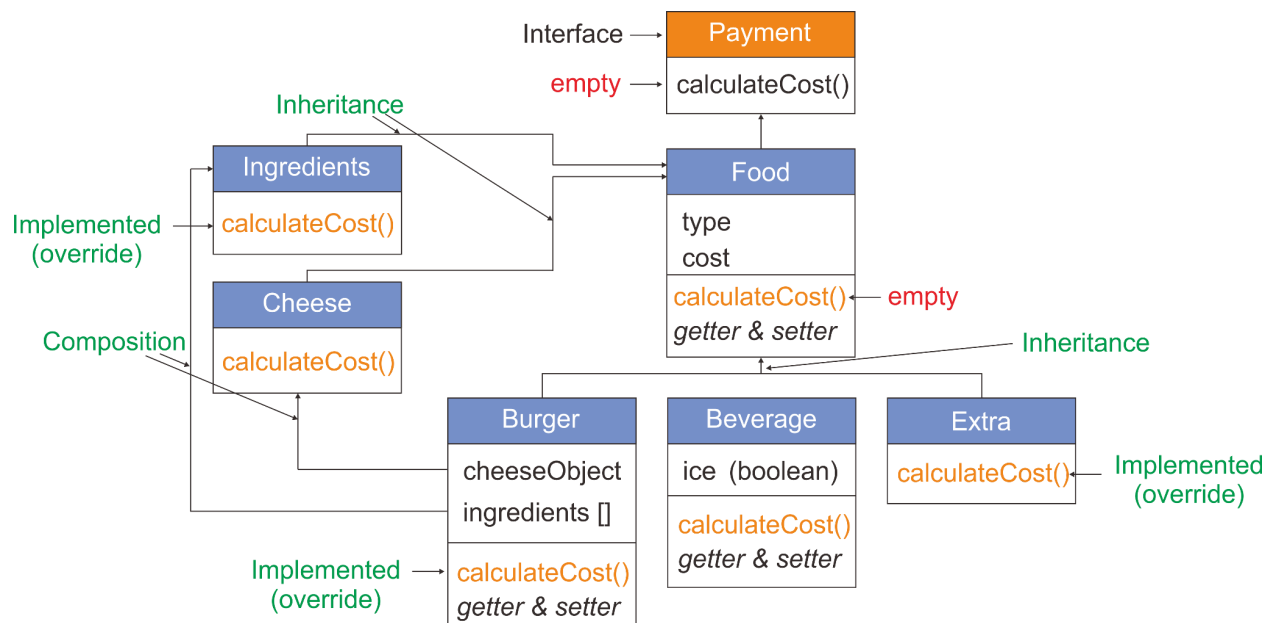
Note: The **green** numbers and **green** words in the console are the user's inputs (Used IDEA: IntelliJ IDEA 2021.1).

Assignment 3

On the SKKU campus, the Subway waitresses and waiters have difficulties handling orders during rush hours. Especially during lunchtime, there are so many students. You are supposed to create a program for helping the waiters of the Subway receive new orders, and calculate the receipt.

You have to build a java program for waiters to calculate the orders.

Your program should follow the diagram below:



When you run the program, it starts with the menu for burgers:

```
=====
Welcome to SKKU-SUBWAY!
Choose burgers (sandwiches):
1. Egg Mayo - 4,000 won
2. Chicken Tikka - 5,000 won
3. Chicken Ham - 5,000 won
4. Roasted Chicken - 5,500 won
0. Cancel Order
Select Burger (1-5): 1
```

After selecting a burger, there is another menu for choosing cheese:

```
=====
Select Cheese Type:
1. American Cheese - (+0 won)
2. Swiss - (+100 won)
3. Cheddar - (+0 won)
Select Cheese (1-3): 2
```

For cheese, some types of cheese add an extra charge to the total cost of the order.

After choosing cheese there is a menu for selecting ingredients and customers can choose multiple ingredients. It shows the ingredient menu until the user chooses the "0. Skip" option.

```
=====
Select Ingredients:
1. Lettuce - (+0 won)
2. Tomatoes - (+0 won)
3. Cucumbers - (+50 won)
4. Olives - (+50 won)
0. Skip
Select Ingredients (1-4): 1
```

```
=====
Select Ingredients:
1. Lettuce - (+0 won)
2. Tomatoes - (+0 won)
3. Cucumbers - (+50 won)
4. Olives - (+50 won)
0. Skip
Select Ingredients (1-4): 0
```

Same with cheese, some types of ingredients add an extra charge.

After selecting ingredients, the user can select beverages:

```
=====
Select Beverages:
1. Cola - 1,000 won
2. Fanta - 1,100 won
3. Chilsung Cider - 900 won
4. Zero Cola - 1,200
5. Coffee - 2,000 won
0. Skip
Select Beverage (1-5): 1
```

It also asks whether to add ice or not.

```
=====
With ice? (0 [no] or 1[yes]): 0
```

After selecting beverages, the user can select extra desserts or others:

```
=====
Select Extras:
1. Cookies - 1,500 won
2. French Fries - 1,300 won
3. Chips - 1,700 won
0. Skip
Select Beverage (1-5): 0
```

Finally, your program has to show the check:

```
=====
| Burger (with cheese and ingredients): 4100.0
| Beverage (without ice): 1000.0
| TOTAL: 5100.0
```

The extra charges for cheese and ingredients are added to the burger cost.

If the customer chooses all options, the receipt looks as follows:

```
=====
| Burger (with cheese and ingredients): 5050.0
| Beverage (with ice): 2000.0
| Extra: 1500.0
| TOTAL: 8550.0
```

If the customer selects both beverage and extras, you should print all of them in detail.

Requirements:

- Create **video** as attached video (show all cases on video)
- Polymorphism
- Inheritance
- Composition
- All classes must be included
- All classes must have a constructor
- All variables of classes must have a getter and setter (must be used as well)
- Follow clean code (check third-week video about Clean code) [meaningful naming, comments, not messy methods]

Submission format: Submit one **zip** file that includes contains 8 .java files: Main.java, Payment.java, Food.java, Ingredient.java, Cheese.java, Burger.java, Beverage.java and Extra.java.

Name of zip file: {student ID}_{Student name}_assignment3.zip

Example: 2020712837_Frank_Thomas_assignment3.zip

Important: Plagiarism is strictly prohibited. If there is any plagiarism found in the code, you will be given an "F" for the assignment evaluation.

If you have any questions about the assignment, you can ask them in the discussion section of the week or contact the TAs directly.

Good luck!