Seneca College

Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444   **Submission date:19-06-2022**   **Date:12-06-2022**

Workshop 3

Code Submission Criteria:

Please note that you should have:
•   Appropriate indentation.
•   Proper file structure
•   Follow java naming convention
•   Document all the classes properly
•   Do Not have any debug/ useless code and/ or files in the assignment

Deliverables and Important Notes:

All these deliverables are to be uploaded on the blackboard once done.
• You are supposed to create video of your running solution for each task along with demo. It should include voice over explaining the logic and code. You can use diagram like flow charts to aid your explanation. **(40%)**

  o Screen Video captured file should state your last name and id, like Ali_123456.mp4 (or whatever the extension of the file is)

• A word/ text file which will reflect on learning of your concepts in this workshop. Also include the instructions on how to run your code. **(30%)**

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> o Should state your Full name and Id on the top of the file and save the file with your last name and id, like Ali_123456.txt

- Submission of working code. **(30%)**
- Make sure your follow the "Code Submission Criteria" mentioned above.
- You should zip your whole working project to a file named after your Last Name followed by the first 3 digits of your student ID. For example, **Ali123.**zip. If the zip file is too large to upload on BB , you can upload the video portion on Jac444-NBB team under files/workshop submission/w01
- Your marks will be deducted according to what is missing from the above-mentioned submission details.
- Late submissions would result in additional 10% penalties for each day or part of it.
- Remember that you are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments, but the final solution may not be copied from any source.

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Task :

Here is a business case of fast-food restaurant that serves a typical Meal which consist of Items such as Burger and /or Cold Drink and/or Fries (any single item or any combination). Each Item has a name, packing type and price. Burger can be either a Veg Burger or Chicken Burger and will be packed in a wrapper. Cold drink can be either a Coke or Pepsi and will be packed in a bottle. Fries can be Curly or Straight fries and is packed in Paper Container.

Both type of Burger uses common ingredients like Mayo, salad, tomatoes, Onions. Veggie Burger uses additionally Soya patty whereas Chicken burger uses chicken patty. Cold Drink can be at room temperature or cold.

Customer is provided menu to select meal option. Customer can add items to meals, add item qty. Additionally, Customer can select what ingredients they want in the Burger. They can also select number of patties however single patty is compulsory in burger. Similarly, selection for cold drink and type of fries also available. Customer are presented with summary of order, per item price and total price before confirming the order.

Customer name and phone number is taken, and order is created with date and time.

Your objective is to implement this scenario. You are required to create interface and abstract classes (remember interface is created so that the system can be scaled by providing more variations whereas abstract class is normally created where there is is-a /kind-of/type-of relationship but only the sub class are real entities), along with concrete classes.

Additionally, you are to create class which will initiate the process of creating meal and Demo class which will interact with customer and will start whole process.

Potential Interfaces/Abstract/Concrete classes: Item, Meal, Order, Restaurant, Burger, Packing, Wrapper, BoxContainer, Bottle, VegiBurger, ChickenBurger, ColdDrink, Coke, Pepsi, Customer,

Ingredients, number of patties and drink detail can be considered as String and numeric data for simplicity.

Possible Menu:

1. **Create Order**
   a. **Add Burger**
      i. **Add Patty**

             ii.   **Add Mayo**
           iii.   **Add Salad**
           iv.   **Add Tomatoes**
           v.   **Add Onions**
           vi.   **Add hot sauce**

      b.   **Add Cold Drink**
      c. **Add Fries**
      d. **Cancel/Confirm**

2. **List Item Details**
3. **Exit**

When order is confirmed, the order summary should be displayed.

Your output should be professional with proper headers and least simple presentation. You can add more options (provide detail for any additions you make), Proper input validations should be in place.