Pizzeria "Palmetto" allows its customers to choose the ingredients when ordering pizza.

Each pizza ordered has an automatically assigned, non-changeable five-digit order number that is automatically saved. Pizza can be of two types: regular and closed (Calzone). Customers can also give

a name to your pizza and order up to 10 of them. Currently, it is possible to use 7 different ingredients for making pizza (the table shows the price):

|  |  |
| --- | --- |
| Tomato paste | 1 $ |
| Cheese | 1 $ |
| Salami | 1.5 $ |
| Bacon | 1.2 $ |
| Garlic | 0.3 $ |
| Corn | 0.7 $ |
| Pepperoni | 0.6 $ |
| Olives | 0.5 $ |

A pizza base costs 1 $, and + 0.5$ for Calzone.

Part 1.

Implement a class for placing an order. It must include the order number (five-digit number), customer number, a list of “Pizza” items, each of which is an object containing the name of the pizza, list of ingredients, type of pizza, and quantity.

Implement an appropriate constructor in which the ingredients are not specified yet.

Check that the name of the pizza contains at least 4 and no more than 20 Latin characters. If the specified name does not satisfy this condition, the pizza is named "customer\_name\_***n***", where ***n*** is the index number of the pizza in the order.

Implement a method for displaying pizza attributes, in which data about pizza is displayed as follows: [Order: Customer: Name: Quantity]

For instance: [10001 : 7717: Margarita: 2]

Part 2.

Implement an addIngredient() method that adds a new ingredient to the pizza. If the pizza is already "full", a corresponding message should be displayed on the screen. Make sure the ingredients are not duplicated, otherwise display a message asking you to check the order again. Fill the Margarita pizza with the following ingredients: tomato paste, pepper, garlic, and bacon.

Fill another pizza with tomato paste, cheese, salami, olives.

Part 3.

Create a method printCheck() that creates an invoice line for each order. It is important that all information is presented in a form like the below example:

*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\**

*Order: 10001*

*Client: 7717*

*Name: Margarita*

*--------------------------------*

*Pizza Base (Calzone) 1,50 €*

*Tomato paste 1,00 €*

*Pepper 0,60 €*

*Garlic 0,30 €*

*Bacon 1,20 €*

*--------------------------------*

*Amount: 4,60 €*

*Quantity: 2*

*--------------------------------*

*Name: PepperoniOro*

*--------------------------------*

*Pizza Base (Calzone) 1,00 €*

*Tomato paste 1,00 €*

*Cheese 1,00 €*

*Pepperoni 1,50 €*

*Olives 0,50 €*

*--------------------------------*

*Amount: 5,00 €*

*Quantity: 3*

*--------------------------------*

*Total amount: 24,20 €*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Part 4

Implement method a main(). In it, implement and withdraw the following orders:

* Customer number 7717 wants to order 2 pcs. "Margarita" and 3 pcs. the usual "PepperoniOro".
* Customer with number 4372 wants to order delivery of 12 pcs. usual pizzas "BasePZZ".

**Optional**

In the Order class add a field of type LocalTime which represents the order time.