Pràctica classe Restaurant

Case Description

The STUCOM DINNER is a restaurant situated in a small city called Winsum, located in the northern part of The Netherlands. The owner, Miss Lisanne, has enlisted your help, as a technology consultant, to develop a Java application for automating the customer ordering process. Miss Lisanne describes menus (dishes) in her restaurant as follows.
All menus are identified by a name, e.g. "stamppot boerenkool", the amount of calories of the dish, e.g. 564.65 kcal, the estimated cooking time in minutes, e.g. 45 min (only integer values), the price per person, e.g. 20.5, and the number of wine bottles included, e.g. 0.5.
Based on this description, complete the assignment by following the exercises listed below.

Exercise 1
Create a Java class (in a Java Project in Eclipse) to represent a menu from the description Miss Lisanne. You can call your class Menu (or any other name that you prefer). Note that this class only serves as a "template" (you do not give values to the attributes yet, but simply define the attributes and the methods).
Hint:

- Define the attributes of the class, their types (e.g. String) and visibility.
- Add the constructor in the class
- Define the getter and setter methods for each of the attributes
- Pay attention to the Java naming conventions for classes and methods

Exercise 2
Add a method in your class to print the details of the menus in the format below:
Menu <name> contains <calories> calories, comes with <number of wine bottles> bottles and cost <price>.
Note that <name>, <calories>, <number of wine bottles> and <price> correspond to the attributes of your class.
You are free to use any name for your method.

Exercise 3
(In the same Java Project) Create another class containing the "main" method.
In this "main class", create 5 objects of the class Menu, as defined in the table below.

name	*amount of calories*	*cooking time*	*price per person*	*number of wine bottles*
Stamppot boerenkool	564.65	45	20.5	0.5
Metworst	345	12	10.99	0
Hutspot	560.4	65	30.9	1
Biefstuk	780	46	50.34	2
Kibbeling	450.4	23	20.78	1

Exercise 4

In your “main class” create an array of length 5, and store the 5 objects (Exercise 3) into the array. You can use any name for your array.

From the array, use a loop to print the details of all the objects using the method you defined in Exercise 2. An example output:

```
Menu Stamppot boerenkool contains 564.65 calories, comes with 0.5 bottles and
cost 20.5
Menu Metworst contains 345.0 calories, comes with 0.0 bottles and cost 10.99
Menu Hutspot contains 560.4 calories, comes with 1.0 bottles and cost 30.9
Menu Biefstuk contains 780.0 calories, comes with 2.0 bottles and cost 50.34
Menu Kibbeling contains 450.4 calories, comes with 1.0 bottles and cost 20.78
```

Exercise 5

Use another loop to print only the name and cooking time of all the dishes that take less than 30 minutes to cook.

Hint: you may use the getter methods for the name and cooking time attributes, and then, print these values (name, cooking time). An example output is shown below. “Metworst” and “Kibbeling” correspond to the names, while 12 and 23 correspond to the cooking time.

```
Metworst cooks in 12
Kibbeling cooks in 23
```

Exercise 6

Use another loop to calculate and print the total price of all the objects (in the array). Example output:

```
The total price is: 133.51
```

Calculate the total price of all the objects. If the price is more than 65, give a discount of 10% and print the total price and the discounted price. Example output:

```
The total price is: 133.51
The discounted price is: 120.15
```