

Programming Languages 2

Lesson 4

Practice all things we learned about through a complex exercise.

1. Create a new project in NetBeans the name of it should be RestaurantProject, the package name is restaurant. Name the main class Main.
2. Add a new class to the project. The name of it should be Dish. A dish has the following properties: name, price (a real value e.g. 2.50.-) and hotness (hot or not hot).
3. Make all properties of the dish private and generate getter and setter methods for them. Note that the name of the getter method for a boolean variable is not starting with “get”, but with “is”. (e.g.: not getHot, but isHot). As a result the code will be more easy to read.
4. Create a constructor that lets the user to set all values of the Dish at the time of instantiation.
5. **Override** the **toString** method of the Dish class so that a dish is printed out in the following format: “**name – price.-** **(hot)**” The underlined part appears only if the dish is hot. E.g.: “Green salad – 2.50.- (hot)” or “Caesar salad – 2.50.-”
6. Create a subclass of the Dish class named Pizza. A Pizza has one extra property: the size that is a natural number between 0 and 100.
7. Generate a getter and setter method for the attribute.

Note that there is an error in the class right now. This is because your Pizza class has only a generated default constructor that tries to call the default constructor of the Dish class. However this latter class does not have a default constructor, since you added your own instead. One solution may be to add a default constructor to Dish, but instead of that

Add a constructor to the Pizza class, in which the user can set all properties of the Pizza.

8. In the main class instantiate a new Pizza with the following data: “Hawaii, 3.10.-, (not hot), 32cm”. Print it out to the screen.
9. Change the toString method of the Pizza class so that it prints out the pizza in the same format as the other dishes plus the size in parentheses.
10. Add a static method to the Main class that gets two Pizzas as parameters, and prints out the smaller Pizza to the screen. Call this method from the main method.