

Programing Languages 2

Practice Test 1

1. Create a new NetBeans Java project. The name of the project has to be your family name (If you have more than one family names you can choose). The name of the package has to be testOne.
2. Create a new class named Person under the project. This class has the following attributes: name, age, sex (a boolean variable holding true if the person is a he else it holds false). All this properties have to be hidden from the outside.
3. Create getter and setter methods for the above attributes. For the name add getter and setter method, but for the other two provide only getters.
4. Add a constructor without parameters to the class. This does not do anything else, but instantiate a new Person object. Add another constructor. This one has 3 parameters with which the user can set all three properties of the newly instantiated Person object. .
5. Override the toString method of the class. If it is called, it returns a String like the following (for a person named Peter, who is 23 years old: "Peter (23) - m", or for one named Kate, who is 27 years old: "Kate (27) - f"). Take care to return a String exactly in this format.
6. Create a child class of the Person class named Student. It has an extra attribute named credits (integer number). Write getter and setter methods for this private attribute as well. This class has only one constructor. The constructor has 4 parameters: name, age, sex, credits. The constructor sets the attributes of the new instant to the values of the corresponding parameters. Override the toString method of this class as well so that it prints out the same String as its parent class plus the credits (e.g.: "Hans (42) - m (credits: 37)").
7. In the Main class, in the main method instantiate a new Person object with the following properties: name: "Bob", age: 31, sex: true. Print out the object.
8. In the Main class, in the main method instantiate a new Student object with the following properties: name: "George", age: 25, sex: true, credits 32. Print out the object.
9. In the Main class create a static method, that gets an integer number as a parameter. The method prints out all odd numbers from 0 to the parameter. (You can assume, that the given number is always positive)
10. Call the above method from the main method, so that it prints out the odd numbers fro 0 to the credits of George.