

7. Classes: constructors and the this keyword

Resources:

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[Classes: the this keyword](#)

Problems

1. Create a class named "Point" It should have the following attributes: x and y.
 - (a) Create a constructor with parameters x and y (the parameters MUST have these names) that initializes the fields in this class.
 - (b) Create an overloaded constructor without any parameters in this class. The fields x and y should be initialized with the value 0.
 - (c) Create a method named "print" that prints the values of the fields x and y.
 - (d) Create a new Point instance with your constructor in your main method. Try to create objects with both constructors and then use the print method to print their coordinates.
2. What does the code in the following snippet do? And why does it lead to this behavior?

```
1 public class Person {
2
3     public int age = 0;
4
5     public static void updateAge(int age) {
6         this.age = age;
7     }
8
9 }
10
11 public class Main {
12
13     public static void main(String[] args) {
14         Person.updateAge(3);
15     }
16
17 }
```

3. To which monkey does "this" refer to in the compare method (explain why)?

```
1 public class Monkey {
2
3     private String name;
4
5     public Monkey(String name) {
6         this.name = name;
7     }
8
9     public boolean compare(Monkey o) {
10        return this.name.equals(o.name);
11    }
12
13 }
14
15 public class Main {
16
17     public static void main(String[] args) {
18         Monkey a = new Monkey("a");
19         Monkey b = new Monkey("b");
20         a.equals(b);
21     }
22
23 }
```

4. What does the this keyword do?