

JAVA CLASSES AND OBJECTS MODULE (HARD)

Java - What are Classes and Objects?

Classes and **objects** - are the two main aspects of object-oriented programming.

Look at the following illustration to see the difference between class and objects:

CLASS	OBJECT
Fruit	Apple
	Orange
	Banana

Another Example:

Class	Object
Motorcycle	Yamaha
	Honda
	Russi

So, a class is a template for objects, and an object is an instance of a class.

When the individual objects are created, they inherit all the variables and methods from the class.

Class - is a template for objects.

Object - is an instance of a class.

Example:

Create an object called "myObj" and print the value of x:

```
public class Main {  
    int x = 5;  
  
    public static void main(String[] args) {  
        Main myObj = new Main();  
        System.out.println(myObj.x);  
    }  
}
```

Output: 5

Multiple Objects

You can create multiple objects of one class:

Example

Create two objects of **Main**:

```
public class Main {  
    int x = 5;  
  
    public static void main(String[] args) {  
        Main myObj1 = new Main(); // Object 1  
        Main myObj2 = new Main(); // Object 2  
        System.out.println(myObj1.x);  
        System.out.println(myObj2.x);  
    }  
}
```

Output: 5

5

Reference:

https://www.w3schools.com/java/java_oop.asp