



Java Classes and Objects

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Java Classes/Objects

Java is an object-oriented programming language.

Everything in Java is associated with classes and objects, along with its attributes and methods. For example: in real life, a car is an object. The car has **attributes**, such as weight and color, and **methods**, such as drive and brake.

A Class is like an object constructor, or a "blueprint" for creating objects.

Create a Class

To create a class, use the keyword **class** :

Main.java

Create a class named "**Main**" with a variable x:

```
public class Main {  
    int x = 5;  
}
```

Remember from the [Java Syntax chapter](#) that a class should always start with an uppercase first letter, and that the name of the java file should match the class name.

Create an Object

In Java, an object is created from a class. We have already created the class named `Main`, so now we can use this to create objects.

To create an object of `Main`, specify the class name, followed by the object name, and use the keyword `new`:

Example

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

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

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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) {  
  
        System.out.println(myObj1.x);  
        System.out.println(myObj2.x);  
    }  
}
```

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Using Multiple Classes

You can also create an object of a class and access it in another class. This is often used for better organization of classes (one class has all the attributes and methods, while the other class holds the `main()` method (code to be executed)).

Remember that the name of the java file should match the class name. In this example, we have created two files in the same directory/folder:

- Main.java
- Second.java

Main.java

```
public class Main {  
    int x = 5;  
}
```

Second.java

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

When both files have been compiled:

```
C:\Users\Your Name>javac Main.java  
C:\Users\Your Name>javac Second.java
```

Run the Second.java file:

```
C:\Users\Your Name>java Second
```

And the output will be:

5

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You will learn much more about classes and objects in the next chapters.

Test Yourself With Exercises

Exercise:

Create an object of `MyClass` called `myObj` .

```
MyObj = new MyClass ();
```

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[Start the Exercise](#)

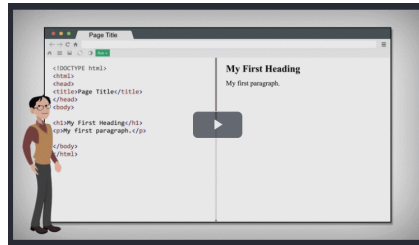
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