

# Hello World

### **Print Line**

System.out.println() can print to the console:

- System is a class from the core library provided by Java
- · out is an object that controls the output
- println() is a method associated with that object that receives a single argument

```
System.out.println("Hello, world!");
// Output: Hello, world!
```

#### Comments

Comments are bits of text that are ignored by the compiler. They are used to increase the readability of a program.

- Single line comments are created by using // .
- Multi-line comments are created by starting with
   /\* and ending with \*/.

```
// I am a single line comment!

/*
And I am a
multi-line comment!
*/
```

## **Compiling Java**

In Java, when we compile a program, each individual class is converted into a .class file, which is known as byte code.

The JVM (Java virtual machine) is used to run the byte code.

```
# Compile the class file:
javac hello.java
# Execute the compiled file:
java hello
```



## Whitespace

Whitespace, including spaces and newlines, between statements is ignored.

```
System.out.println("Example of a
statement");

System.out.println("Another statement");

// Output:
// Example of a statement
// Another statement
```

### **Statements**

In Java, a statement is a line of code that executes a task and is terminated with a ; .

```
System.out.println("Java Programming • ");
```

### main() Method

In Java, every application must contain a main() method, which is the entry point for the application. All other methods are invoked from the main() method. The signature of the method is public static void main(String[] args)  $\{ \}$  . It accepts a single argument: an array of elements of type String.

```
public class Person {
  public static void main(String[] args) {
    System.out.println("Hello, world!");
  }
}
```



#### **Classes**

A class represents a single concept.

A Java program must have one class whose name is the same as the program filename.

In the example, the Person class must be declared in a program file named **Person.java**.

```
public class Person {
  public static void main(String[] args) {
    System.out.println("I am a person, not
  a computer.");
  }
}
```

