

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!  
*/
```

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.");  
  
    }  
  
}
```

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.

Whitespace

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

Statements

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

```
# Compile the class file:
```

```
javac hello.java
```

```
# Execute the compiled file:
```

```
java hello
```

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

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

```
// Output:
```

```
// Example of a statement
```

```
// Another statement
```

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