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!");

  }

}
```

Computing Systems & Personal Security

Using a user's personal data can create unique and personalized online experiences for use; however, there is a risk to personal privacy when collecting and storing personal data in a program.

Computing Systems & Ethical and Social Impacts

Programs have had both positive and negative ethical and social impacts on society. Some examples of this include:

- Machine learning: While there are positives to pattern identification and automation, there is a problem with data bias and its impact on marginalized communities.
- AI: For example, should a driverless car make choices that protect the life of the passenger over the life of another driver or a pedestrian?

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**.

```java
public class Person {

  public static void main(String[] args)
{

    System.out.println("I am a person,
not a computer.");

  }

}
```

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