

Your First Program: HelloWorld.java

In Java, every piece of code must live inside a **class**. Here is what the code looks like:

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

Breaking Down the Code

Don't worry if this looks like a secret code at first. Here is what each part actually does:

- **public class HelloWorld**: This defines the "bucket" for your code. In Java, the filename must match the class name (so this file must be saved as `HelloWorld.java`).
- **public static void main(String[] args)**: This is the **entry point**. It's the door the computer walks through to start running your program. Without this specific line, your program won't run.
- **System.out.println**: This is the command that tells the computer to "print" or display text on the screen.
- **The Semicolon (;)**: Think of this as a period at the end of a sentence. It tells Java the instruction is finished.

How Java Works

Unlike some languages that run directly, Java uses a two-step process to ensure it can run on any device (Windows, Mac, or Linux).

1. **Compile**: You run your code through a compiler (`javac`), which turns your readable text into "Bytecode."
2. **Run**: The Java Virtual Machine (JVM) reads that bytecode and executes it on your specific computer.

3 Steps to Run It

If you have the Java Development Kit (JDK) installed, you can try this right now:

1. **Save**: Copy the code above into a text editor (like Notepad or TextEdit) and save it as `HelloWorld.java`.
2. **Compile**: Open your terminal or command prompt and type: `javac HelloWorld.java`
3. **Execute**: Type: `java HelloWorld`

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- [How to Install Oracle JDK and Configure VS Code for Java Development](#)

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