**1. What is Source Code?**

**Definition:**  
Source code is the human-readable set of instructions written by a programmer in a high-level programming language such as Java, Python, or C++. It is saved in files and serves as the starting point for creating software.

**Example:**  
A simple Java source code file (HelloWorld.java):

**2. What is Byte Code?**

**Definition:**  
Byte code is an intermediate, machine-independent code generated by the compiler from the source code.

**Example:**  
HelloWorld.class

**3. What is a Compiler?**

A compiler is a tool that changes source code into byte code (or machine code). It also checks if your code has any errors.

**Example:** In Java, the javac command compiles the file

**4. What is an IDE?**

An IDE (Integrated Development Environment) is a program that helps you write, edit, and test code. It has features like a code editor and tools to run your program.

**Example:**

* Eclipse

**5. What is Runtime?**

* Runtime is when your program is actually running. In Java, the JVM (Java Virtual Machine) runs your program during runtime.
* **Example: java HelloWorld**