WEEK 2

1. What are the softwares that help to run Java programs?

To run Java programs, you need software such as the **Java Development Kit** (JDK) and the **Java Runtime Environment** (JRE). In addition, many developers prefer using **Integrated Development Environments** (IDEs) such as *Eclipse, NetBeans, IntelliJ IDEA,* or *BlueJ*. These tools provide features like code editors, compilers, and debuggers, making it easier to write, compile, and execute Java code efficiently.

2. What is JDK and JRE?

The **Java Development Kit** (JDK) is a complete package required for developing Java applications. It contains essential tools such as the compiler (**javac**), a debugger, and various utilities needed to write and test programs.

The **Java Runtime Environment** (JRE) is included within the JDK but can also be installed separately. It contains only the components needed to run Java programs—such as the **Java Virtual Machine** (JVM) and core libraries—without the development tools.

3. What is Eclipse IDE?

Eclipse IDE is a widely used, open-source integrated development environment designed primarily for Java programming, though it can support other languages through plugins. It offers a range of features including <u>syntax highlighting, code completion, project organization, and integrated debugging</u>. By combining a built-in compiler with powerful development tools, Eclipse streamlines the process of creating, testing, and running Java applications.

4. How to run a Java program in Eclipse/NetBeans IDE?

Open the IDE and create a new **Java Project.**

Add a Java class file with a **main()** method.

Right-click the file or project and select **Run** (or click the Run button). The output will appear in the console.