

❓ **JDK (Java Development Kit)**

- Used to **develop Java programs**
- Contains **JRE + development tools**
- Tools: `javac` (compiler), `java`, `javadoc`, debugger, etc.
- Required for **writing and compiling** Java code

❑ Example: If you want to create Java programs → you need **JDK**

❑ **JRE (Java Runtime Environment)**

- Used to **run Java programs**
- Contains **JVM + core libraries**
- Does **not** include compiler (`javac`)
- Suitable for users who only **run** Java applications

❑ Example: If you only want to run a Java app → **JRE is enough**

❑ **JVM (Java Virtual Machine)**

- Converts **bytecode (.class)** into **machine code**
- Makes Java **platform independent**
- Manages memory, garbage collection, and execution