

Java Development Kit (JDK)

- The **Java Development Kit (JDK)** is a software development environment that offers a collection of tools and libraries necessary for developing Java applications.
- The JDK includes :
 - Java Runtime Environment (JRE)
 - Interpreter (java)
 - Compiler (javac)
 - Archiver (jar)
 - Aocumentation generator (javadoc) etc.

Why use JDK?

- JDK contains tools required to write Java programs, and JRE to execute them.
- It includes a compiler, Java application launcher, Applet viewer, etc.
- Compiler converts code written in Java into byte code.
- Java application launcher opens a JRE, loads the necessary class, and executes its main method.

Java Run-time Environment (JRE)

- Java Runtime Environment is an installation package which provides environment to only run(not develop) the java program(or application) onto our machine.
- JRE consist of :
 - Java Virtual Machine (JVM)
 - User interface toolkits, including Abstract Window Toolkit (AWT), Swing etc.
 - Deployment technologies such as deployment, Java plug-in, and Java Web Start.

Java Virtual Machine (JVM)

- JVM (Java Virtual Machine) is an abstract machine that enables your computer to run a Java program.
- Every system has its own **JVM** which gets installed automatically when the **JDK** software is installed.
- Java is platform independent because of Java Virtual Machine. But **JVM** is platform dependent.

JDK, JRE, JVM

