



JDK

- It stands for Java Development Kit.
- It is a **development** version that comes by using JDK we can develop as well as execute the java programs.
- It is used to develop and execute the java programs, we have various development tools.

JRE

- It stands for Java Runtime Environment.
- This means runtime of JVM to load and execute the class file.
- JVM loader class file and convert the java file into Operating System understandable format.

JVM

- It is a platform-independent, it provides various features like Class loading, class verification, allocating the memory for all the variables, Garbage collection, Security Manager and so on.

JSP compiler

- It is used to convert JSP files into servlets.
- It is a part of the JDK.
- It is used to compile the JSP files into servlets.
- It is used to execute the JSP files.
- It is used to convert the JSP files into servlets.
- It is used to convert the JSP files into servlets.

What is the difference between Compiler (JDK) and Interpreter (JRE contains Interpreter)?

Compiler	Interpreter
1) Scans the entire program once.	1) Scans line by line.
2) Will convert the JSP into byte code.	2) Will convert the byte code into O/S format.
3) Byte code is generated as, it needs a separate memory.	3) Reads the byte code line by line and generates the output continuously.
4) It catches all the errors and warnings at a time as, debugging is slow.	4) It will display only one runtime error at a time as, debugging is fast.
5) After successful compilation, execution is fast.	5) Execution is slow because if we make a mistake it will not run it until after removing the issue. It will report error from the number 1.
6) After successful compilation, we can delete the source code.	6) The current source the byte code due to line by line execution.

Note : JDK uses compiler and interpreter.