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INFORMATION TECHNOLOGY FOR CLASS 12

(Study materials based on N.C.E.R.T)

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DATE:-10/09/2020(THURSDAY)

## INTRODUCTION TO COMPUTERS, PROGRAMS AND JAVA

### ❖ Java Development Kit(JDK):

- JDK tools are applied to build and run application programs as show this figure. The steps are listed below:

**Step 1:** To create a Java program, we need to create a source code file using a text editor.

**Step 2:** The source code is then compiled using the Java compiler Javac.

**Step 3:** Then it is executed using the java interpreter java.

**Step 4:** The Java debugger jdb is used to find errors, if any, in the source code.

**Step 5:** A compiled Java program can be converted into a source code with the help of Java disassembler javap.

- The Java Development Kit comes with a collection of tools that are used for developing and running java programs. JDK tools include:

a) **Applet Viewer (For viewing Java Applets):** A pre- created applet can be viewed using applet viewer. Enables us to run java applets (without actually using a Java-compatible browser). It has following syntax:

C:\> appletviewer <URL of the .html file>

b) **Javac ( java compiler):** a java program can be created by using any text editor and save file with extension .java. Java source code to byte code files that the interpreter can be understand. Or it converts the “Java” file to a “class” file. It has following syntax.

C:\> javac filename.java

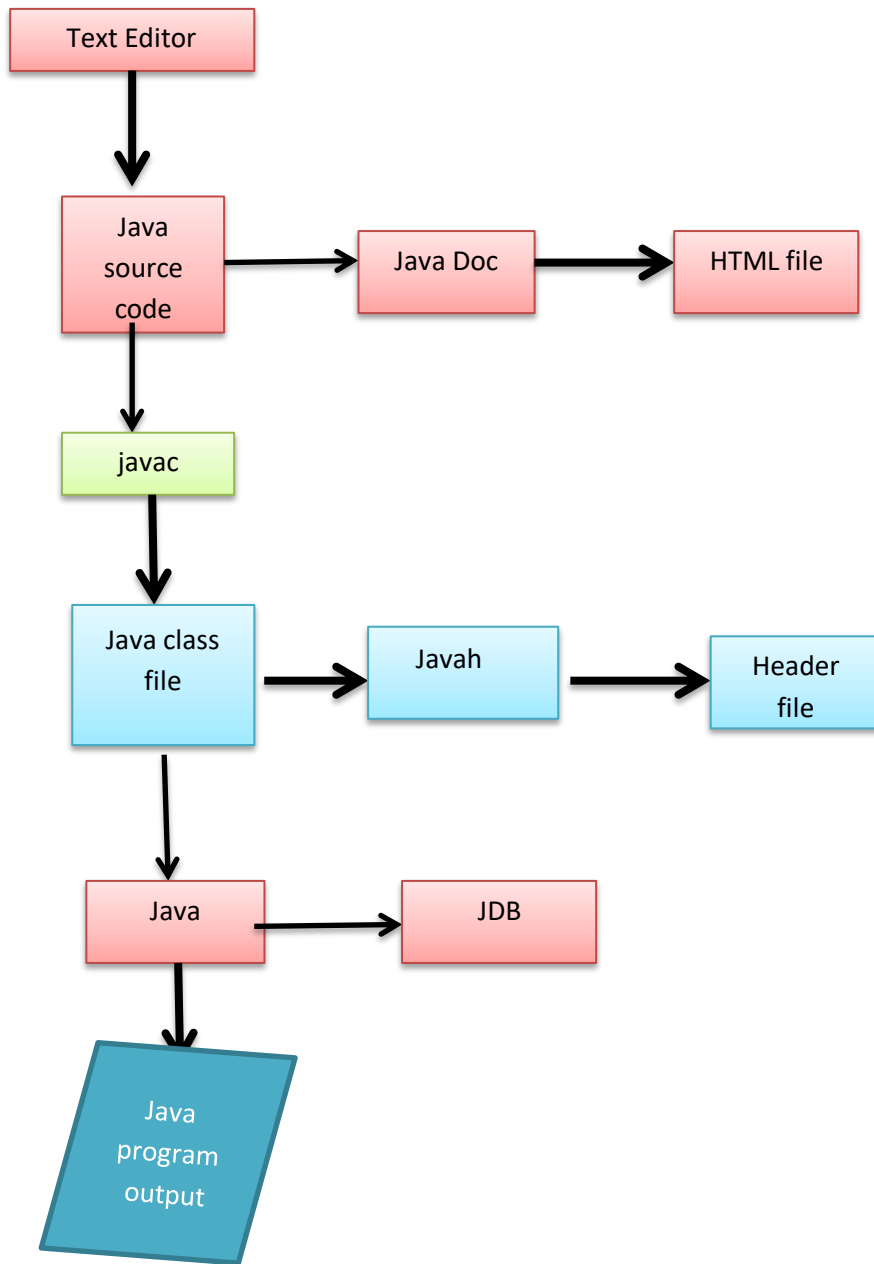
c) **Java (Java Interpreter):** The java interpreter is used to execute a compiled java application (.class). Java interpreter, which runs applets and applications by reading and interpreting bytecode files. The bytecode created as a result of compilation is interpreted. The syntax is, (file extension is not needed): C:\> java filename

d) **Javap (java disassembler):** Which enables to convert byte code files into a program description?

e) **Javah (for C header files):** Produces header files for uses with native methods.

f) **Javadoc (For Creating HTML Documents):** Creates HTML-format documentation from java source code files.

g) **Jdb (java debugger):** Which helps us to find errors in the programs.



**Figure: Process of Creation and Run a Java program**