Introduction to Java:

* Java is a programming language and a platform. Java is a high level, robust, object-oriented and secure programming Language.

* Java was developed by Sun MicroSystems (which is now the subsidiary of Oracle) in the year 1995. James Gosling is known as the father of Java. Before java, its name was Oak.

* Platform:

Any hardware or software environment in which a program runs, is known as a platform. Since Java has a runtime environment (JRE) and API, it is called a platform.

Features of Java:

1. Object Oriented
2. Simple
3. Secured
4. Platform independent
5. Robust
6. Portable
7. Architecure Natural
8. Dynamic
9. Interpreted
10. High performance
11. Multithreaded

Application:

* According to Sun, 3 billion devices run Java. There are many devices where Java is currently used.

Some of them as follows:

* . Desktop Applications such as acrobat reader, media player, antivirus etc.
* Web applications such as irctc.co.in, javapoint.com.
* Enterprise Application such as banking applications.
* Mobil
* Embedded system
* Smart card
* Robotics
* Games ....

Introduction to JVM, JRE, JDK

* JRE is an abbrevation for Java Runtime Environment.
* . The JVM is an abbrevation for Java Virtual Machine
* The JDK (Java Development Kit) is a software development kit that develops applications in Java.

JVM:

* JVM is an abstract machine
* It is called a virtual machine because it doesn't physically exist
* It is a specification that provides a runtime environment in which java bytecode can be executed.
* It can also run those programs which are written in other languages and compiled to Java bytecode.
* JVMs are available for many hardware and software platforms.

JDK

* The JDK is a software development environment which is used to develop Java applications and applet. It physcially exists. It contains JRE + Development tools

* JDK is an implementation of any one of the below given Java platform released by Oracle Corporation.
   (i) Standard Edition Java Platform
   (ii) Enterprise "   "   "
   (iii) Micro   "   "   "

* The JDK contains a private Java VM and a few other resources such as an interpreter/loader (Java), a compiler (Javac) an archiver (jar), a documentation generator (Javadoc), etc. to complete the development of a Java Application.