

1. What is Java?

Ans. Java is a programming language and a platform. It is a high level ,robust, object oriented and Secure programming language.

Features of Java: -

1. Simple- It can be learned easily.
2. Object Oriented- Any code in java is a side class.
3. Interpreted- Java is both compiled and interpreted with a compiler (javac).
4. Secure- Java contains built in security.
5. Robust- Java does not have permission to access computer memory.
6. Portable- Java programs can run on multiple platforms.
7. Architecture /natural (platform independence)- Java compiler produces the byte codes, byte codes are platform independent.
8. High Performance- Just in time compiler- it can convert byte code into machine code easily.
9. Multithreaded- It is the ability of an application to perform multiple tasks at same time.
10. Distributed- RMI packages are used for creating distributed server and client applications.
11. Dynamic- Java supports dynamic memory allocation with automatic garbage collection.

2. What is JDK and JRE ?

JDK(Java Development Kit)- JDK is an acronym for Java Development Kit. The Java Development Kit (JDK) is a software development environment which is used to develop Java applications and applets. It physically exists. It contains JRE + development tools.

The JDK contains a private Java Virtual Machine (JVM) 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.

JRE(Java Runtime Environment)- JRE is an acronym for Java Runtime Environment. It is also written as Java RTE. The Java Runtime Environment is a set of software tools which are used for developing Java applications. It is used to provide the runtime environment. It is the implementation of JVM. It physically exists. It contains a set of libraries + other files that JVM uses at runtime.

JVM (Java Virtual Machine) 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.

3. Which one is the smallest data type out of Int ,Char ,Byte ,Short?

Ans. The smallest data type among these is- Byte(1 byte).

Int- Size of int is **4 byte**

Char- Size of char is **2 byte**

Byte- Size of byte is **1 byte**

Short- Size of short is **2 byte**