

1. Garbage collection is the process where Java automatically removes unused objects from memory to free up space and prevent memory leaks.
2. JVM ek bytecode verifier bhi hota hai jo ensure karta hai ki jo bytecode load kiya gaya hai, wo correct hai aur usmein koi harmful code nahi hai.
3. Heap mein objects store hote hain.  
Stack mein method calls aur local variables store hote hain.
4. Jab JVM ne bytecode ko machine code mein convert kar diya aur memory management complete ho gaya, tab program execute hona start ho jata hai.
5. Local Variables:  
These are declared inside methods or blocks and can only be used within that method or block.
6. **\*\*Instance Variables\*\***  
are variables declared inside a class but outside methods. Each object of the class has its own copy of these variables.
7. **\*\*Class Variables (Static Variables)\*\***  
are declared with the `static` keyword. These variables are shared by all instances of the class, meaning all objects of the class use the same copy of the variable.
8. **\*\*JDK (Java Development Kit)\*\***  
is a set of tools used to develop Java applications. It includes the Java compiler, libraries, and the JRE (Java Runtime Environment) to run Java programs.
9. **\*\*JRE (Java Runtime Environment)\*\***

is a package that provides everything needed to run Java applications. It includes the JVM (Java Virtual Machine) and core libraries but does not have the tools to develop or compile Java programs.

10. **\*\*JVM (Java Virtual Machine)\*\***

is an engine that runs Java bytecode. It converts the compiled Java code into machine language and executes it. JVM makes Java platform-independent, allowing Java programs to run on any device or operating system that has a JVM.

