

## INTRODUCTION TO JAVA

1. Sun Microsystems developed Java Programming language.
2. Released in 1995 by James Gosling.
3. Features: Object Oriented, Platform independent, Secure, Architectural-neutral, Portable, Robust, Multithreaded, Interpreted, High Performance, Distributed, Dynamic.
4. Edit - - -Writing a program  
Compile - - - creates byte codes from program  
Load - - - class loader stores byte codes in memory  
Execute - - - translates bytes codes into machine language
5. Program.java - ->Compiler - -> program.class - ->JavaVm - -> program.

## OOPS—Object Oriented Programming

6. Objects - - > Objects represent an entity and the basic building block.
7. Class - - > Class is the blue print of an object.
8. Abstraction - - > Abstraction represents the behaviour of an real world entity.
9. Encapsulation - - > Encapsulation is the mechanism of binding the data together and hiding them from outside world.
10. Inheritance - - > Inheritance is the mechanism of making new classes from existing one.
11. Polymorphism - - > It defines the mechanism to exists in different forms.
12. OO Analysis - - > Identifying the objects of a system.
13. OO Design - - > Identify their relationships and make a design.
14. OO Implementation - - > The design is implemented using object oriented programming language.
15. OO Analysis includes
  - Find the objects
  - Organize the objects
  - Describe how the objects interact
  - Define the behaviour of the objects
  - Define the internals of the objects
16. OO design includes
  - Defining the objects
  - Their interactions
17. OO implementation includes
  - The design is implemented using object oriented languages like Java, C++ etc.

## DATA TYPES

18. Logical – boolean - - > True / False  
Textual – char - - > 16bit Unicode character  
Integral – byte, short, int, and long  
Floating – double and float
19. byte - - > 8 bits  
short - - > 16 bits  
int - - > 32 bits  
long - - > 64 bits  
float - - > 32 bits  
double - - > 64 bits