**OOP Concept:**

**Class: It is the blue print of object and collection of methods, variables, blocks and they all are connected to object. Class defines the Object.**

**Object: It’s a real world entity which have state and behavior.**

**Ex - Class: Animal**

**Object: Dog (State: Color of Dog , Behaviour: Barking)**

**Method: Its a block of code for performing a particular task.**

**Syntax: access modifier static(optional) return type method Name();**

**Inheritance: When child class inherit the properties of parent class then it is known as inheritance.**

**extends keyword is used for inheritance.**

**Polymorphism: When name is same but functionalities are different so we called it polymorphism.**

**Ex: Remote – Tv, Ac**

**There is two of polymorphism-**

**Static/Compile Time Polymorphism- Handle By Compiler and Achieved By Method Overloading**

**Method Overloading-**

**Same Class**

**Same Method Name**

**Argument Different**

**Return Type Same/Different**

**Dynamic/Run Time Polymorphism- Handle By JVM and Achieved By Method Overriding**

**Method Overridding-**

**Class Different**

**IS-A Relationship**

**Method Name Same**

**Argument Same**

**Return Type Same/Covarient**

**Encapsulation: When data and function is binded in a single unit then it is known as encapsulation.**

**How to achieve-**

1. **All variable should be private**
2. **Access that variable by getter and setter methods and these methods should be public access modifier.**

**Abstraction: Hide the internal working and provide function only is known as abstraction.**