

## 02) What is OOP? List of Concepts.

- OOP is a Object Oriented Programming it is based on the concept of object.
- OOP approach identifies classes of objects that are closely related to the methods with which they are associated.
- It also covers the concepts of attribute and method inheritance.

### ❖ List of Concepts:

#### ➤ **Object:**

- Object is a basic unit of OPP. It is used to assign memory to class. It can be anything.

#### ➤ **Class:**

- Class is a Template or Blueprint which is collection of data member and member function.

#### ➤ **Encapsulation:**

- encapsulation describes bundling data and methods that work on that data within one unit.
- Encapsulation is also called data hiding.

#### ➤ **Inheritance:**

- Inheritance is one of the core feature of OPP. It's a programming procedure that allow you to reuse code by referencing the behaviors and data of an object.

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- A class that inherits from another class shares all the attributes and method of the referenced class.

### ➤ Polymorphism:

- Polymorphism describes situations in which something occurs in several different forms.
- Polymorphism describes the concept that you can access object of different type through the same interface.

### ➤ Abstraction:

- Abstraction main goal is to handle complexity by hiding unnecessary details from user.
- That's very generic concept that's not limited to object oriented programming.

### 03) Whats is the different between OOP and POP?

oop	pop
It is Object Oriented Programming.	It is Structure Oriented Programming.
Program is Divided into Object.	Program is Divided into Function.
In OOP Inheritance Property is used.	In POP Inheritance is not Allowed.
It uses access specifier.	It doesn't use access specifier.
Encapsulation is used to hide the data	No data hiding
Concept of virtual function.	No virtual function.
Object functions are linked through message passing.	Parts of program are linked through parameter passing.

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Adding new data and function is easy.	Expanding new data and function is not easy.
The existing code can be reused.	No code reusability.
Use for solving big problem.	Not suitable for solving big problem.