**Module 4.1**

* **What is OOP? List OOP concepts.**

Object-oriented programming is one of the most important programming paradigms. It is a system of principles that define what basic logic we use to solve a given task and to structure our programs, and how elements of the code are connected to each other.

List of concepts that is used in OOPS:

* Class
* Object
* Polymorphism
* Inheritance
* Encapsulation
* Abstraction
* **What is the difference between OOP and POP?**

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| *Object Oriented Programming* | *Procedural Oriented Programming* |
| * Programs are divided into parts known as objects. * It deals with Data. * Data is hidden and cannot be accessed by outside functions. * It is bottom-up approach. * It needs more memory than POP. * Ex: C++, Java, .Net. | * Programs are divided into functions. * It deals with Algorithms. * Functions are responsible for transforming from one form to another. * It is top-down approach. * It needs less memory than OOP. * Ex: C, Fortran. |