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

🡪 OOP stands for Object-Oriented Programming, which is a programming paradigm that uses objects and their interactions to design applications. The basic idea of OOP is to break down complex problems into smaller, more manageable objects, and to organize these objects into classes that encapsulate data and behaviour.

**concepts of OOP:**

Class :-

class is a user defined data type which contains data members and member function in a single entity.

Object :-

Object is a variable name is which is use to access the properties of class.

Encapsulation:-

One class contain similar or dis-similar data elements in a single entity is called encapsulation.

Inheritance: -

When one class inherits the properties of another class is known as inheritance

Polymorphism:-

Poly means many and morphs means forms. so Polymorphism means many forms

Overall, OOP provides a powerful way to organize structure code, making it more modular, reusable, and easier to maintain.