**OOPs Concept**

1. What is OOP? List OOP concepts.

* OOP treats data as critical element in program development and does not allow it to flow freely around the system.
* It ties the data more closely to the function that operates on it.
* Object Oriented Programming allows decomposition of program into a
* number of entities called objects and then builds data and function around these objects.

Characteristics of Object-Oriented Programming:

* Emphasis on data rather than procedure.
* Program are divided into objects.
* Data is hidden and cannot be accessed by external functions.
* Objects may communicate with each other through functions.
* Follows bottom-up approach in program design.

Some of the basic concepts of object-oriented programming:

* Objects
* Classes
* Data abstraction and encapsulation
* Polymorphism
* Inheritance
* Dynamic Binding

what is the difference between OOP and POP?

| **OOP** | **POP** |
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| [Object oriented](https://www.geeksforgeeks.org/introduction-of-object-oriented-programming/). | [Structure oriented](https://www.geeksforgeeks.org/difference-between-structured-programming-and-object-oriented-programming/). |
| Program is divided into objects. | Program is divided into functions. |
| Bottom-up approach. | Top-down approach. |
| Inheritance property is used. | 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. |
| Adding new data and functions is easy | Expanding new data and functions is not easy. |
| The existing code can be reused. | No code reusability. |
| use for solving big problems. | Not suitable for solving big problems. |
| [C++](https://www.geeksforgeeks.org/c-plus-plus/), [Java](https://www.geeksforgeeks.org/java/). | [C](https://www.geeksforgeeks.org/c-programming-language/), Pascal. |