OOPS

Procedural Programming

① Procedural programming can be defined as a programming model which is derived from structured programming, based upon the concept of calling procedure.

② Procedures, also known as routines, subroutines or functions, simply consist of a series of computational steps to be carried out.

③ During a program's execution, any given procedure might be called at any point, including by other procedures or itself.

example

- FORTRAN, ALGOL, COBOL,
- BASIC, Pascal and C

Object-Oriented Programming

- Object-oriented programming can be defined as a programming model which is based upon the concept of objects. Objects contain data in the form of attributes and code in the form of methods.
- In object-oriented programming, computer programs are designed using the concept of objects that interact with the real world. Object-oriented programming languages are various but the most popular ones are class:-based, meaning that objects are instances of classes, which also determine their types.

Languages used in OOPS:-

- Java, C++, C#, Python
- PHP, Javascript, Ruby, Perl
- Objective-C, Dart, Swift, Scala.

Procedural Oriented Programming	Object - Oriented Programming
In procedural Oriented Programming is divided into small parts called functions.	In object-oriented programming the program is divided into small parts called objects.
Procedural programming follows a top-down approach.	OOP follows a bottom-up approach
There There is no access specifier in procedural programming.	Object-oriented programming has access specifiers like private, public, protected etc.
Adding new data and functions is not easy.	Adding new data and function is easy.
PP does not have any proper way of hiding data so it is less secure.	OOP provides data hiding so it is more secure.
In PP, overloading is not possible.	~~Over~~ OOP Overloading is possible in OOP.
In PP, there is no concept of data hiding and inheritance.	In OOP, the concept of data hiding and inheritance is used.
In procedural programming, the function is more important than the data.	In OOP data is more important than function.
Procedural programming, the function is more important than the data.	OOP is ~~used for~~ based on the real-world.
PP is based on the unreal world.	
Examples - C, FORTRAN, Pascal, Basic etc.	Examples - C++, Java, Python, C# etc.

The Object Oriented Programming

⊙ OOP is a computer programming model th organizes software design around data, or objects, rather than functions and logic.

⊙ An object can be defined as a data field th has unique attributes and behavior.

⊙ OOP focuses on the objects that developers w to manipulate rather than the logic require to manipulate them.

What is the structure of object-oriented programming?

⊙ Classes – are user-defined data types that ac as the blueprint individual objects, attributes and methods.

⊙ Objects are instance of a class created with specifically defined data. Objects can corresp to real-world objects or an abstract entity. When class is defined initially, the descripti is the only object that is defined.

Methods are functions that act on an objec and can manipulates its data or perform actions on it. They are called using dot notation. With the object name followed by a period and method name. Methods are an important part of object-orient programming in Python.

⊙ Attributes – is a modifier on a meth declaration that specifies information that controls the method's use and behavior. Adding an attribute on a method declarat is also known as decorating a method. For example, decorating a method with @