Oop :-

It is a programming approach based on classes & objects.In simple language, oop is a method to represent the “real world entity” in programming.

Oops features:-

1. Class & objects
2. Inheritance
3. Polymorphisms
4. Encapsulation
5. Abstraction

What is class & object?

Class:- Class is a blueprint for an object. Like Real world entity has some properties or behavior which is represented by class variable & method in programming.

Syntax:- class class\_name:

#variable

#method

Object:-As we know class is a logical entity while an object is a physical or real entity that works on classes data.

Note:-

1. Each object has a distinct role or responsibility.
2. Object creates space on memory as pev class members.

Syntax:- obj\_name= class\_name()

What is Constructor?

Constructor is a special function that gets automatically called when object of class created.

Syntax:-

def \_\_init\_\_(self):

#code

What is default constructor?

Default constructor are also called empty constructor,because it doesn’t have any parameter.

Note- If we do not define any constructor,the compiler automatically calls the default constructor.

Syntax:- class class\_name:

def \_\_init\_\_(self):

#code

What is parametarized constructor?

Parametarized constructor accept arguments along with self,it is known as parametarized constructor.

Syntax:- class class\_name:

def \_\_init\_\_(self,name):

#code

What is Access Modifiers?

Access Modifiers are used to set the limit of member accessibility.

Type of Access modifiers:-

Public(var),protected(\_var),private(\_\_var).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Type | Same class | Same package | Derived class | Other class |
| Var | public |  |  |  |  |
| \_var | Protected |  |  |  | X |
| \_\_var | Private |  | X | X | X |