

Assignment No. 9

Q4- what is class and object? How they are implemented in Python?

Ans-

Class - The class can be defined as collection of objects. It is a logical entity that has some specific attributes and methods.

e.g. if we have a class - employee then it has attributes and methods i.e. an email-id, age, salary etc.

Syntax - class classname

Object - Object is an entity that has state and behaviour. It may be similar to any real-world objects like mouse, pen, chair etc.

Everything in Python is an object and almost everything has attributes and methods. All functions have a built-in attribute.

Syntax -

object name - classname (arguments)

Q. what is constructor and its types?

Ans- A constructor is a special type of method

(function) which is used to initialize the instance members of the class.

* There are of two types-

- 1.) Parameterized
- 2.) Non-parameterized

→ Constructor definition is executed when we create the objects of this class.

Eg:

To initialize the employee class attributes-

```
class Employee:
```

```
    def __init__(self, name, id):
```

```
        self.id = id
```

```
        self.name = name
```

```
    def display(self):
```

```
        print("ID: %d in Name: %s" % (self.id, self.name))
```

```
emp1 = Employee("Ravi", 101)
```

```
emp2 = Employee("Harshit", 102)
```

```
emp1.display() ## to print emp1 information
```

```
emp2.display()
```

O/p :-

Id: 101

Name: Ravi

ID: 102

Name: Harshit