Class and Object

Class and Object

Python is an object oriented programming language.

Almost everything in Python is an object, with its properties and methods.

A Class is like an object constructor for creating objects.

#creating class and object:

```
class Point:                    #naming convention
      def hello(self):        #method
            print(“hello”)
point1 = Point()                    #creating an object
point1.hello()
```

Self parameter

It is a reference to the current instance of the class.

It has to be the first parameter of any function in the class.

It is used to access variables that belongs to the class.

We can call it whatever we like (not only self).

__init__() Function

- It is always executed when the class is being initiated.
- The function to assign values to object properties.

```
Class Point:
        def __init__(self,x,y):          #self = This is called constructor
                self.x = x                       #setting the x attribute to the x argument passed to this function
                self.y = y
        def hello(self)                   #method
                print(“hello”)
point1 = Point(10,20)                        #creating an object
Print(point1.x)
```

Examples

```
class Profile:
    def __init__(self, name, address):
        self.name = name
        self.address = address


    def myprofile(thename):
        print("hello my name is" + thename.name + "I am from " +
thename.address)

p1=Profile("Ram","Nepal")
p1.myprofile()
```

Changing the values

```
class Profile:
    def __init__(self, name, address):
        self.name = name
        self.address = address
    def myprofile(thename):
        print("hello my name is" + thename.name + "I am from " +
thename.address)

x=Profile("Ram","Nepal")
x.name = “Hari”
x.myprofile()
```

Delete the property

```
class Profile:
    def __init__(self, name, address):
        self.name = name
        self.address = address
    def myprofile(thename):
        print("hello my name is" + thename.name + "I am from " + thename.address)


x=Profile("Ram","Nepal")
del x.address
x.myprofile()
```

Delete Object

```
class Profile:
    def __init__(self, name, address):
        self.name = name
        self.address = address
    def myprofile(thename):
        print("hello my name is" + thename.name + "I am from " + thename.address)


x=Profile("Ram","Nepal")
x.myprofile()
del x
```