**Static**

1.Define a static variable and access that through a class

class Fruits(object):

count = 0

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

self.name = name

self.count = count

Fruits.count = Fruits.count + count

def main():

apples = Fruits("apples", 3);

pears = Fruits("pears", 4);

print (apples.count)

print (pears.count)

print (Fruits.count)

print (apples.\_\_class\_\_.count) # This is Fruit.count

print (type(pears).count) # So is this

if \_\_name\_\_ == '\_\_main\_\_':

main()

2. Define a static variable and access that through a instance

class Employee: # create Employee class name

dept = 'Information technology' # define class variable

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

self.name = name # instance variable

self.id = id # instance variable

# Define the objects of Employee class

emp1 = Employee('John', 'E101')

emp2 = Employee('Marcus', 'E105')

print (emp1.dept)

print (emp2.dept)

print (emp1.name)

print (emp2.name)

print (emp1.id)

print (emp2.id)

# Access class variable using the class name

print (Employee.dept) # print the department

# change the department of particular instance

emp1.dept = 'Networking'

print (emp1.dept)

print (emp2.dept)

# change the department for all instances of the class

Employee.dept = 'Database Administration'

print (emp1.dept)

print (emp2.dept)

3. Define a static variable and change within the instance

class Marks:

def Math\_num(a, b): # define the static Math\_num() function

return a + b

def Sci\_num(a, b): # define the static Sci\_num() function

return a +b

def Eng\_num(a, b): # define the static Eng\_num() function

return a +b

# create Math\_num as static method

Marks.Math\_num = staticmethod(Marks.Math\_num)

# print the total marks in Maths

print (" Total Marks in Maths" , Marks.Math\_num(64, 28))

# create Sci\_num as static method

Marks.Sci\_num = staticmethod(Marks.Sci\_num)

# print the total marks in Science

print (" Total Marks in Science" , Marks.Sci\_num(70, 25))

# create Eng\_num as static method

Marks.Eng\_num = staticmethod(Marks.Eng\_num)

# print the total marks in English

print (" Total Marks in English" , Marks.Eng\_num(65, 30))

4. Define a static variable and change within the class

class Shape:

def info(msg):

# show custom message

print(msg)

print("This class is used for representing different shapes.")

# create info static method

Shape.info = staticmethod(Shape.info)

Shape.info("Welcome to Shape class")