***One Week STTP on “Python Programming”***

**Day – 1**

***Sample Programs:***

***Variable Creation***

x = "Computer"  
# is the same as  
x = 'Computer'

x, y, z = "Orange", "Banana", "Cherry"

***Clear the Windows***

>>> import os

>>> clear = lambda: os.system("cls")

>>> clear()

## ***Number***

## >>> abc=10

## >>> xyz=150

## >>> abc

## 10

## >>> xyz

## 150

>>> del abc

>>> abc

Traceback (most recent call last):

File "<stdin>", line 1, in <module>

NameError: name 'abc' is not defined

>>> xyz

150

>>> aa=9

>>> bb=5

>>> aa

9

>>> bb

5

>>> del aa,bb

***String***

>>> it="Welcome to Python STTP"

>>> it

'Welcome to Python STTP'

>>> print(it)

Welcome to Python STTP

>>> print(it[0])

W

>>> print(it[8:10])

to

>>> print(it[11:])

Python STTP

>>> print(it[-4:22])

STTP

>>> print(it)

Welcome to Python STTP

>>> print("Hearty " + it)

Hearty Welcome to Python STTP

>>> print(it+" By IT Department")

Welcome to Python STTP By IT Department

>>> print(it\*2)

Welcome to Python STTPWelcome to Python STTP

***List***

>>> list1 = [ “Tiruchendur”, 1234 , 15.95, “IT”, 100.5 ]

>>> list2 = [ “Dr.SACOE”, “IT”,”Department” ]

>>> print(list1)

['Tiruchendur', 1234, 15.95, 'IT', 100.5]

>>> print(list2)

['Dr.SACOE', 'IT', 'Department']

>>> print(list1+list2)

['Tiruchendur', 1234, 15.95, 'IT', 100.5, 'Dr.SACOE', 'IT', 'Department']

>>> print(list2\*2)

['Dr.SACOE', 'IT', 'Department', 'Dr.SACOE', 'IT', 'Department']

>>> print(list1[1:4])

[1234, 15.95, 'IT']

>>> print(list1[3:])

['IT', 100.5]

***Tuple***

>>> tuple1 = ( "Dr.SACOE", "IT","Department" )

>>> tuple2=("Welcome",1234)

>>> print(tuple1)

('Dr.SACOE', 'IT', 'Department')

>>> print(tuple2)

('Welcome', 1234)

>>> print(tuple1+tuple2)

('Dr.SACOE', 'IT', 'Department', 'Welcome', 1234)

>>> print(tuple2\*3)

('Welcome', 1234, 'Welcome', 1234, 'Welcome', 1234)

>>> print(tuple1[0])

Dr.SACOE

>>> print(tuple1[1:3])

('IT', 'Department')

>>> print(tuple1[1:])

('IT', 'Department')

***Dictionary***

>>> dict1={}

>>> dict1['one'] = "ONE"

>>> dict1[2] = "TWO"

>>> print(dict1)

{'one': 'ONE', 2: 'TWO'}

>>> print(dict1['one'])

ONE

>>> print(dict1[2])

TWO

>>> dict2 = {'name': "STTP",'code':7, 'dept': "IT"}

>>> print(dict2)

{'name': 'STTP', 'code': 7, 'dept': 'IT'}

>>> print(dict2.keys())

dict\_keys(['name', 'code', 'dept'])

>>> print(dict2.values())

dict\_values(['STTP', 7, 'IT'])

## ***Python Indentation***

if 5 > 2:  
 print("Five is greater than two!")  
        print("Five is greater than two!") - Error

# *Bitwise Operators*

a = 60 # 60 = 0011 1100

b = 13 # 13 = 0000 1101

print ('a=',a,':',bin(a),'b=',b,':',bin(b))

c = 0

c = a & b; # 12 = 0000 1100

print ("result of AND is ", c,':',bin(c))

c = a | b; # 61 = 0011 1101

print ("result of OR is ", c,':',bin(c))

c = a ^ b; # 49 = 0011 0001

print ("result of EXOR is ", c,':',bin(c))

c = ~a; # -61 = 1100 0011

print ("result of COMPLEMENT is ", c,':',bin(c))

c = a << 2; # 240 = 1111 0000

print ("result of LEFT SHIFT is ", c,':',bin(c))

c = a >> 2; # 15 = 0000 1111

print ("result of RIGHT SHIFT is ", c,':',bin(c))

# *Membership Operators*

a = 10

b = 20

list = [1, 2, 3, 4, 5 ]

if ( a in list ):

print ("Line 1 - a is available in the given list")

else:

print ("Line 1 - a is not available in the given list")

if ( b not in list ):

print ("Line 2 - b is not available in the given list")

else:

print ("Line 2 - b is available in the given list")

c = b/a

if ( c in list ):

print ("Line 3 - a is available in the given list")

else:

print ("Line 3 - a is not available in the given list")

**Identity *Operators*:**

a = 20

b = 20

print ('Line 1','a=',a,':',id(a), 'b=',b,':',id(b))

if ( a is b ):

print ("Line 2 - a and b have same identity")

else:

print ("Line 2 - a and b do not have same identity")

if ( id(a) == id(b) ):

print ("Line 3 - a and b have same identity")

else:

print ("Line 3 - a and b do not have same identity")

b = 30

print ('Line 4','a=',a,':',id(a), 'b=',b,':',id(b))

if ( a is not b ):

print ("Line 5 - a and b do not have same identity")

else:

print ("Line 5 - a and b have same identity")

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* THANK YOU \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*