**Python training Notes:**

**Course Name:** **SCRIPT 307: Basic Python**

**This is Part 1 of the whole training in the duration 17 to 31 July**

**This will be followed with next Part 2 session for Intermediate Python topics in the month of August.**

**Day 2: 18 Jul 2018 - Wednesday (2 Hrs Session)**

**Expectation Setting ASL (Assisted Self-Learning) 2Hrs session daily**

**And then do self-study and hands on assignments from below learning course link and also the assignments given below here in this document:**

<https://knowledgecenter.persistent.co.in/ViewCourse/pmoc>

***Please visit the following URL to view the collaborative learning group***

<https://persistentuniversity.persistent.co.in/CollaborativeLearningGroup/view.aspx?SkillId=9144>

**Topics Covered:**

String, List, Tuple

Functions for List , tuple

Operators

**\*\*\*\*\*To Do for Day 2:**

Nugget 1 : Introduction to Python & Python Fundamentals

Nugget 2 : Python Basics

Nugget 3 : Python Control Structures

Subjective Assignment for Nugget 1 to 3 : Only for self Practice

522

1. Complete reading these 3 Nuggets from <https://knowledgecenter.persistent.co.in/ViewCourse/pmoc>

2. Please execute all codes in these 3 Nuggets

3. Start solving assignment at the end of Nuggets

**Try Below Codes:**

**3\_DataType2\_String.py**

s = '012345' #every character is stored at index

print "oth index charater = ",s[0] #09

print "String from 1 to 4 index = ",s[1:4] #range 1:4 123

print "String after index 2 =",s[2:] #2345

print "String upto 4 index = ",s[:4] #0123

str ="Welcome to PSL. PSL Pune"

count = str.count('PSL',0,len(str))

print 'Cunt of PSL = ',count

print "one, %d, two"%2 # one, 2, two

print '%s two %s'%(1,'three')

print 'Hello\n'\*3 #printed thrice

print 'h' in "hello" #return True

"""

'AB"C' possible

"AB'C" error

"""A'B"C"""

DocString

"""

Type

“””

s=’ABC’

revStr = s[::-1] #reversed string

**6\_List\_Tuple.py**

#List data tuple data

#list ---->mutable

listOne= [123, 'abc', 4.56]

print listOne

print "---------------------------------"

#Tuple --->immutable

tupleOne= (123, 'abc', 4.56)

print tupleOne

#inner list

listTwo= [4.56, ['inner', 'list']]

print listTwo

#inner Tuple

tupleTwo = (123, 'abc', 4.56, ['inner', 'tuple'], 7-9j,[10,20])#tuple having one of the elements as mutable list

print tupleTwo

print "First element of list = ", listOne[0]

print "First element of tuple = ", tupleOne[0]

print listTwo[0:1]

print "------------------------------------------------"

listFour= [123, 'abc', 4.56, ['inner', 'list']]

print "3rd index inner list = ", listFour [3]

print "3rd index inner list = ", listFour [6] #run time error

print "first index element of inner list = " , listFour [3][1]

**7\_List\_Update.py**

#Updating List data:

#Example 1: Replacing a value in List

#append insert remove pop extend reverse

listOne=[100,200,'hello']

print listOne

listOne[2] =200

print listOne

print "last element = ",listOne[-1]

listOne.append(500)

print listOne

listThree= [123, 'abc', 4.56]

listThree.insert(2,'c')

print listThree

listThree.remove(4.56)

print listThree

#pop

listSix= [123, 'abc', 4.56]

print listSix.pop()

print "Modified List =", listSix

listSix.pop(1)

#listSix.pop(5) run time error IndexError

print "Modified List =", listSix

listTwo= [123, 'abc', 4.56]

print 'Original list = ', listTwo

listTwo.reverse()

print "reversed list =", listTwo

print "--------------------------------"

listOne= [123, 'abc', 4.56]

listOne.append([1, 2])

print "Extended list = ",listOne

print "--------------------------------"

print 'abc' in listTwo

print 'abc' not in listTwo

print "--------------------------------"

number\_list = [43, -1.23, -2]

string\_list = ['hello', 'world']

print string\_list + number\_list

print "--------------------------------"

listX =[10,0,44,55,77]

print "Original X list = ",listX

listX.sort()

print "Sorted X list = ",listX

**8\_Tuple\_del.py**

"""Tuple example - immutable"""

tupleOne= (123, 'abc', 4.56) #tuple defination tupleOne

tupleTwo= (789, 'def', 2.24) #tuple defination tupleTwo

tupleThird= tupleOne[0], tupleTwo[1] #Tuples are immutable which means they cannot be updated or change values of

print "Count of 123 in tupleOne = ",tupleOne.count(123)

#tuple values.But they allow to take portions of Tuples to create a new Tuple.

print "tupleOne = ",tupleOne #tupleOne = (123, 'abc', 4.56)

print "tupleTwo = ",tupleTwo #tupleTwo = (789, 'def', 2.24)

print "New tupleThird = ",tupleThird #New tupleThird = (123, 'def')

del tupleThird #Removing individual tuple elements is not possible though it is possible to

#delete an entire tuple with del function

#print tupleThird #run time error

print "--------------------------------------------"

t1 =(1,2,3)

print "Original Tuple = ", t1

l1 = list(t1)

print "Converted list by list function = ", l1

l1.append([100,200])

print "Appended list = ", l1

print "--------------------------------------------"

newT1 = tuple(l1)

print "New tuple from tuple method = ",newT1

"""

len(list1)

id(listOne)

type(listOne)

del

"""

**--------------------**

**Error**

TypeError

NameError

SyntaxError

**Assignments to do:**

1. Accept a string, check whether it is palindrome

Eg. “madam”

1. sort the list of following names by an ascending order of number of letters in each name

unsortedList = ['Aaaa', 'bb', 'cccccccc', 'zzzzzzzzzzzz']

1. Print addition of all elements of a list containing all numeric elements.
2. Accept the list elements from keyboard for user accepted number and then print all elements in ascending sorted order.

Save the solutions in a folder: **Assignments\Day2**

Script names should be Q1.py, Q2.py, Q3.py

**Assignments\Day2 --🡪**

**Q1.py**

**Q2.py**

**Q3.py**