**ASSIGNMENT-1 Data Types**

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**Please implement by using Python.**

1. Construct 2 lists containing all the available data types (integer, float, string, complex and Boolean) and do the following..
   1. Create another list by concatenating above 2 lists
   2. Find the frequency of each element in the concatenated list.
   3. Print the list in reverse order.

**Ans:-**

list1 = [ 27.4, 14, 'Avishek', True, 8+9j] #Creating first list

list2 = [False,35,27.4,'Data Science',8+9j] #Creating second list

l3 = list1+list2 #creating new list concatination of list1 and list2

print(l3) #printing new list

O/p >>> [27.4, 14, 'Avishek', True, (8+9j), False, 35, 27.4, 'Data Science', (8+9j)]

#using count function to get frequency of each element

l3.count(27.4) O/p >>> 2

l3.count(14) O/p >>> 1

l3.count('Avishek') O/p >>> 1

l3.count( True) O/p >>> 1

l3.count(8+9j) O/p >>> 2

l3.count(False) O/p >>> 1

l3.count('Data Science') O/p >>> 1

l3.count(35) O/p >>> 1

#list l3 is combination of str and complex so, no sorting

list3 = [7,98,45,23,80,54,7,3,13] #Defining new list

list3.sort(reverse =True) #sorting list using sort function

print(list3) #printing list3 after sorting

O/p >>> [98, 80, 54, 45, 23, 13, 7, 7, 3]

1. Create 2 Sets containing integers (numbers from 1 to 10 in one set and 5 to 15 in other set)
   1. Find the common elements in above 2 Sets.
   2. Find the elements that are not common.
   3. Remove element 7 from both the Sets.

**Ans**:-

set1 = {1,2,3,4,5,6,7,8,9,10} #crating first set

set1 Out[104]: {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

set2 = {5,6,7,8,9,10,11,12,13,14,15} #creating second set

set2 Out[106]: {5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15}

comm = set1.intersection(set2) #using intersection function to get common elements

comm Out[108]: {5, 6, 7, 8, 9, 10}

not\_comm1 = set1-comm #finding not common elements

not\_comm1 Out[110]: {1, 2, 3, 4}

not\_comm2 = set2-comm

not\_comm2 Out[112]: {11, 12, 13, 14, 15}

#removing 7 from both sets

not\_7 = set1 - {7}

not\_7 Out[114]: {1, 2, 3, 4, 5, 6, 8, 9, 10}

not7 = set2 - {7}

not7 Out[116]: {5, 6, 8, 9, 10, 11, 12, 13, 14, 15}

1. Create a data dictionary of 5 states having state name as key and number of covid-19 cases as values.
   1. Print only state names from the dictionary.
   2. Update another country and it’s covid-19 cases in the dictionary.

**Ans:-**

#creating a dictionary

dic = {"Andhra Pradesh":888350,"Bihar":260095,"Delhi":635916,"Karnataka":942031,"Maharashtra":2041398}

dic.keys() #printng only state names using key function

Out[118]: dict\_keys(['Andhra Pradesh', 'Bihar', 'Delhi', 'Karnataka', 'Maharashtra'])

dic["United"] = 27519636 #adding new data to dictionary

dic

Out[120]:

{'Andhra Pradesh': 888350,

'Bihar': 260095,

'Delhi': 635916,

'Karnataka': 942031,

'Maharashtra': 2041398,

'United': 27519636}