**ASSIGNMENT-1 Data Types**

**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..

Ans: lst=[23,2.5,'azhar',2+3j,True] #creating list ont

lst1=[40,5.3,'mohammed',5+6j,False] ##creating list two

* 1. Create another list by concatenating above 2 lists.

Ans: lst=[23,2.5,'azhar',2+3j,True] #creating list ont

lst1=[40,5.3,'mohammed',5+6j,False] ##creating list two

list=lst+lst1. #concatenating both the lists in list variable.

Output: [23, 2.5, 'azhar', (2+3j), True, 40, 5.3, 'mohammed', (5+6j), False]

* 1. Find the frequency of each element in the concatenated list.

Ans: #importing collections pakages in python and using counter funtion

import collections

print(collections.Counter(list)) #here counter function give the frequencu of each element

* 1. Print the list in reverse order.

Ans: list= [23, 2.5, 'azhar', (2+3j), True, 40, 5.3, 'mohammed', (5+6j), False]

list.reverse() ###using reverese in built function to print the list in reverse order.

list

[False, (5+6j), 'mohammed', 5.3, 40, True, (2+3j), 'azhar', 2.5, 23].

1. Create 2 Sets containing integers (numbers from 1 to 10 in one set and 5 to 15 in other set)

Ans: s1={1,2,3,4,5,6,7,8,9,10} ###Creating set 1

s2={5,6,7,8,9,10,11,12,13,14,15} ##creating set 2

* 1. Find the common elements in above 2 Sets.

Ans: s1={1,2,3,4,5,6,7,8,9,10} ###Creating set 1

s2={5,6,7,8,9,10,11,12,13,14,15} ##3creating set 2

s1.intersection(s2) ##using intersection function to print common elements

{5, 6, 7, 8, 9, 10}

* 1. Find the elements that are not common.

Ans: s1={1,2,3,4,5,6,7,8,9,10}

s2={5,6,7,8,9,10,11,12,13,14,15}

print(s1.symmetric\_difference(s2)) ##Symmetric() removes that element which is present in both the sets and print uncommon elements

Output: {1, 2, 3, 4, 11, 12, 13, 14, 15}

* 1. Remove element 7 from both the Sets.

Ans:

s1={1,2,3,4,5,6,7,8,9,10}

s2={5,6,7,8,9,10,11,12,13,14,15}

s1.remove(7) ##using remove function to remove 7 from set 1

s1= {1, 2, 3, 4, 5, 6, 8, 9, 10} #####using remove function to remove 7 from set 2

s2.remove(7)

s2= {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.

Ans: dict={'andhra pradesh’:20000,’up’:50000,'maharashtra’:60000, ‘telangana’:70000, ‘delhi’:90000} #creating dictionary with state names and keys as covid cases.

* 1. Print only state names from the dictionary.

Ans: dict={'andhra pradesh’:20000,’up’:50000,'maharashtra’:60000, ‘telangana’:70000, ‘delhi’:90000}

dict.keys() ##printing the states with key() function

output:

(['andhra pradesh',’up’,’maharashtra’,’telangana’,’delhi’])

#Dictionary is key pair value data type with the help of ‘.key’ method it will get only states names.

* 1. Update another country and it’s covid-19 cases in the dictionary.

Ans: dict={'andhrapradesh':20000,'up':50000,'maharashtra':60000,'telangana':70000,'delhi':900000}

dict2={'kerala':2000}

dict.update(dict2) #adding the another state in dict variable with ‘update’method.