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| """ Student\_ID : 20C098 |
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|  | Practical:2 (List,Tuple,Set,Dictionary) """ |
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|  | #DICTIONARY |
|  | # A)Write a Python script to check whether a given key already exists in a dictionary |
|  | dict={'red':'apple','blue':'sky','green':'trees','orange':'fire'} |
|  | print('The given dictionary : ',dict) |
|  | key="blue" |
|  | if key in dict: |
|  | print(key,"is present") |
|  | else: |
|  | print (key,"not present") |
|  |  |
|  | # B) Write a Python script to merge two Python dictionaries. |
|  | D1={'one':1,'two':2,'three':3,'four':4} |
|  | D2={'A':'apple','B':'ball','C':'cat','D':'doll'} |
|  | print('D1:',D1) |
|  | print('D2:',D2) |
|  | def Merge(D1,D2): |
|  | xyz = D1|D2 |
|  | return xyz |
|  | D3=Merge(D1,D2) |
|  | print('D1+D2:' ,D3) |
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|  | # C) Write a Python program to sum all the items in a dictionary. |
|  | Dict={'a': 350, 'b': 300, 'c': 250} |
|  | def returnSum(Dict): |
|  | list = [] |
|  | for i in Dict: |
|  | list.append(Dict[i]) |
|  | final = sum(list) |
|  |  |
|  | return final |
|  | print('Dict:',Dict) |
|  | print("Sum of all the items in dict :", returnSum(Dict)) |
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|  | #D)Write a Python script to add a key to a dictionary |
|  | dict1={1:100,2:200,3:300} |
|  | dict1.update({4:400,5:500}) |
|  | print('Dict1:',dict1) |
|  |  |
|  | #E)Write a Python script to concatenate following dictionaries to create a new one. |
|  | Dict1={1:10,2:20 } |
|  | Dict2 ={3:30,4:40 } |
|  | Dict3 ={5:50,6:60 } |
|  | print('Dict1: ',Dict1) |
|  | print('Dict2: ',Dict2) |
|  | print('Dict3: ',Dict3) |
|  | print('Dict1 + Dict2 + Dict3 :',Dict1|Dict2|Dict3) |
|  |  |
|  | #TUPLE |
|  | # A) Write a Python program to create a tuple with different data types. |
|  | tuple=('dhwani','i am good',True,50,63.0214) |
|  | print(tuple) |
|  |  |
|  | # B) Write a Python program to create a tuple with numbers and print one item. |
|  | tuple1 = 1, 11, 21, 31, 41,51 |
|  | print('The given tupple is: ',tuple1) |
|  | tuple1 = 21 |
|  | print('The one item from tupple is: ',tuple1) |
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|  | # C) Write a Python program to add an item in a tuple. |
|  | tp=('red','yellow','orange','blue') |
|  | print('the given tupple is : ',tp) |
|  | a=("green") |
|  | tp = tp + (a,) |
|  | print('new tuple :',tp) |
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|  | # D) Write a Python program to convert a tuple to a string. |
|  | tuple = ('d', 'h', 'w', 'a', 'n','i') |
|  | str = ''.join(tuple) |
|  | print('the tupple is : ',tuple) |
|  | print('tuple created to string: ',str) |
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|  | # E) Write a Python program to find the length of a tuple. |
|  | tuple2 = ("20cs073DhwaniSakhiya") |
|  | print('the tuple is: ',tuple2) |
|  | print('the length of the tuple is : ',len(tuple2)) |
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|  | #Set |
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|  | # A) Write a Python program to add member(s) in a set and clear a set |
|  | numbers = {10,20,30,40} |
|  | print('the numbers are: ',numbers) |
|  | numbers.add(50) |
|  | print('new set of numbers are: ',numbers) |
|  |  |
|  | # B) Write a Python program to remove an item from a set if it is present in the set. |
|  | sets = set([30, 50, 76, 40, 54, 10]) |
|  | print('the given set is : ',sets) |
|  | def Remove(sets): |
|  | sets.discard(54) |
|  | print('set after removing 54:',sets) |
|  | Remove(sets) |
|  |  |
|  | # C) Write a Python program to create an intersection, Union, difference of sets. |
|  | A = {10,30, 50, 70, 90}; |
|  | B = {10, 20, 30, 40, 50}; |
|  | print('Set A :',A) |
|  | print('Set B :',B) |
|  | # union |
|  | print("Union :", A | B) |
|  | # intersection |
|  | print("Intersection :", A & B) |
|  | # difference |
|  | print("Difference :", A - B) |
|  |  |
|  | # D) Write a Python program to find maximum and the minimum value in a set. |
|  | setA= set([88, 23, 30, 10, 25, 73, 10, 90, 52]) |
|  | def MAX(sets): |
|  | return (max(sets)) |
|  | print('SetA: ',setA) |
|  | print('max value from setA: ',MAX(setA)) |
|  | # Python code to get the minimum element from a set |
|  | setB = set([40, 15, 10, 92,9, 23]) |
|  | def MIN(setB): |
|  | return (min(setB)) |
|  | print('SetB: ',setB) |
|  | print('max value from setB: ',MIN(setB)) |
|  |  |
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|  | # E) Write a Python program to find the most common elements and their counts from list, tuple, dictionary |
|  | print('LIST') |
|  | words=['yellow', 'green', 'blue', 'yellow','yellow','green'] |
|  | print('list:',words) |
|  | from collections import Counter |
|  | c = Counter(words) |
|  | c.most\_common(1) |
|  | print ('the most common element from the list :',c.most\_common(1)) |
|  |  |
|  | print('TUPLE') |
|  | words=('apple', 'grapes', 'cherry', 'grapes','cherry','orange') |
|  | print('tuple:',words) |
|  | from collections import Counter |
|  | c = Counter(words) |
|  | c.most\_common(1) |
|  | print ('the most common element from the tuple :',c.most\_common(1)) |
|  |  |
|  | print('DICTIONARY') |
|  | word= { 'home','hospital','school','park','park'} |
|  | print('dict:',word) |
|  | from collections import Counter |
|  | c = Counter(word) |
|  | c.most\_common(1) |
|  | print ('the most common element from the dict :',c.most\_common(1)) |