1. Write a Python script to sort (ascending and descending) a dictionary by value. Go to the editor

Click me to see the sample solution

# 1

dic = {1: 2, 3: 4, 4: 3, 2: 1, 0: 0}

print("Original dictionary: ",dic)

sorted\_dic= {}

sorted\_keys = sorted(dic, key=dic.get)

# HERE WE FIRST SORT THE DICTIONARY SO THAT WE WILL GET IT IN ASCENDING ORDER

for i in sorted\_keys:

sorted\_dic[i] = dic[i]

print("Sorted dictionary in ascending: ", sorted\_dic)

# AFTER WE GOT THE RESULT OF ASCENDING ORDER WE JUST REVERSE THE DISCTIONARY SO THAT IT WILL BE IN DESCENDING ORDER

sorted\_dic = dict(sorted(dic.items(), reverse=True))

print("Sorted dictionary in descending: ", sorted\_dic)

2. Write a Python script to add a key to a dictionary. Go to the editor

Sample Dictionary : {0: 10, 1: 20}

Expected Result : {0: 10, 1: 20, 2: 30}

Click me to see the sample solution

#M1

d1 = {1:100, 2:200, 3:300}

d2 = {4:400, 5:500}

print(d1)

d1.update(d2)

print(d1)

#M2

d1 = {1:100, 2:200, 3:300}

print(d1)

d1.update({4: 400})

print(d1)

3. Write a Python script to concatenate following dictionaries to create a new one. Go to the editor

Sample Dictionary :

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

Click me to see the sample solution

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50, 6:60}

d = {\*\*dic1, \*\*dic2, \*\*dic3}

print(d)

#Note: The \*\* operator is used to unpack the key-value pairs from each dictionary and merge them into a new dictioanry.

4. Write a Python script to check if a given key already exists in a dictionary. Go to the editor

Click me to see the sample solution

d = {'a': 1, 'b': 2, 'c': 3, 'd': 4}

key = input("Enter key to check: ")

if key in d.keys():

print("Key is present")

else:

print("key is not present")

5. Write a Python program to iterate over dictionaries using for loops. Go to the editor

Click me to see the sample solution

d1 = {1:100, 2:200, 3:300}

for k,v in d1.items():

print(k, ":",v)

6. Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x). Go to the editor

Sample Dictionary ( n = 5) :

Expected Output : {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

Click me to see the sample solution

def generate\_dict(n):

return{

x: x\*x

for x in range(1, n+1)

}

n = int(input("Enter the number to genetare dictionary: "))

print(generate\_dict(n))

7. Write a Python script to print a dictionary where the keys are numbers between 1 and 15 (both included) and the values are square of keys.

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100, 11: 121, 12: 144, 13: 169, 14: 196, 15: 225}

# M1

d1 = {

x: x \*\* 2

for x in range(1, 16)

}

print(d1)

# M2

d = dict()

for x in range(1,16):

d[x]=x\*\*2

print(d)

8. Write a Python script to merge two Python dictionaries.

d1 = {1:100, 2:200, 3:300}

d2 = {4:400, 5:500}

print(d1)

d1.update(d2)

print(d1)

9. Write a Python program to iterate over dictionaries using for loops.

d1 = {1:100, 2:200, 3:300}

for k,v in d1.items():

print(k, ":",v)

10. Write a Python program to sum all the items in a dictionary.

#M1

d = {'a': 1, 'b': 2, 'c': 3, 'd': 4}

print(sum(

value

for value in d.values()

))

#M2

def sum\_val(dictionary):

return sum(dictionary.values())

d = {'a': 1, 'b': 2, 'c': 3, 'd': 4}

print(sum\_val(d))

11. Write a Python program to multiply all the items in a dictionary.

d = {'a': 1, 'b': 2, 'c': 3, 'd': 4}

answer = 1

for i in d:

answer = answer\*d[i]

print(answer)

12. Write a Python program to remove a key from a dictionary.

def remove\_key(dictioanry, key):

if key in dictioanry:

del dictioanry[key]

return dictioanry

d = {'a': 1, 'b': 2, 'c': 3, 'd': 4}

print(remove\_key(d,'c'))

13. Write a Python program to map two lists into a dictionary.

def map\_list(keys, values):

return dict(zip(keys , values))

keys = ['a','b','c','d','e']

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

print(map\_list(keys,values))

14. Write a Python program to sort a dictionary by key.

def sort\_dict\_by\_key(dictionary):

return {k: v for k, v in sorted(dictionary.items())}

my\_dict = {'c': 3, 'a': 1, 'b': 2, 'd': 4}

print(sort\_dict\_by\_key(my\_dict))