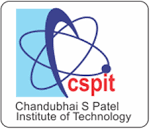
20CS015 Dev Desai



Faculty of Technology and Engineering

# U & P U. Patel Department of Computer Engineering

Date: 10 / 12 / 2021

# Practical List

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Academic Year | : | 2021-22 | Semester | : | 4 |
| Course code | : | CE259 | Course name | : | Programming in Python |

## AIM:

*# Write a Python script to check whether a given key already exists in a dictionary.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

**def** checkKey(dict, key):

**if** key **in** dict:

print("Present, ", end =" ") print("value =", dict[key])

**else**:

print("Not present")

*# Driver Code*

dict = {'a': 100, 'b':200, 'c':300}

key = 'b' checkKey(dict, key)

key = 'w' checkKey(dict, key)

## OUTPUT:

Present, value = 200 Not present

## AIM:

*# Write a Python script to merge two Python dictionaries. # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

d1 = {'a': 100, 'b': 200}

d2 = {'x': 300, 'y': 200}

d = d1.copy() *#print(Merge(d1,d2))*

d.update(d2) print(d)

## OUTPUT:

{'a': 100, 'b': 200, 'x': 300, 'y': 200}

## AIM:

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

*# my\_dict = {'data1':100,'data2':-54,'data3':247} # print(sum(my\_dict.values()))*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

my\_dict = {'A': 100, 'B': 200, 'C': 300}

sum = 0

**for** i **in** my\_dict.values(): sum = sum + i

print(sum)

## OUTPUT:

600

## AIM:

*# Write a Python script to add a key to a dictionary. # Developed By: Dev Desai(20CS15)*

*# https://github.com/devdesai0602/Programming-in-Python*

d = {0:10, 1:20}

print(d) d.update({2:30}) print(d)

## OUTPUT:

{0: 10, 1: 20}

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

## AIM:

*# Write a Python script to concatenate following dictionaries to create a new one.*

*# dic1={1:10, 2:20}*

*# dic2={3:30, 4:40} # dic3={5:50,6:60}*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

dic4 = {}

**for** d **in** (dic1, dic2, dic3): dic4.update(d) print(dic4)

## OUTPUT:

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

## AIM:

*# Write a Python program to create a tuple with different data types. # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

tuplex = ("tuple", False, 3.2, 1) print(tuplex)

## OUTPUT:

('tuple', False, 3.2, 1)

## AIM:

*# Write a Python program to create a tuple with numbers and print one item.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

fruits=('Banana','Apple','Mango','Orange') print(fruits)

print(fruits[2])

('Banana', 'Apple', 'Mango', 'Orange')

## OUTPUT:

Mango

## AIM:

*# Write a Python program to add an item in a tuple. # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

*#create a tuple*

tuplex = (4, 6, 2, 8, 3, 1) print(tuplex)

*#tuples are immutable, so you can not add new elements*

*#using merge of tuples with the + operator you can add an element and it will create a new tuple*

tuplex = tuplex + (9,)

print(tuplex)

*#adding items in a specific index*

tuplex = tuplex[:5] + (15, 20, 25) + tuplex[:5] print(tuplex)

## OUTPUT:

|  |  |  |
| --- | --- | --- |
| (4, 6, 2, 8, | 3, | 1) |
| (4, 6, 2, 8, | 3, | 1, 9) |
| (4, 6, 2, 8, | 3, | 15, 20, 25, 4, 6, 2, 8, 3) |

***AIM:***

*# Write a Python program to convert a tuple to a string. # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

tup = ('D', 'e', 'v', ' ', 'D', 'e', 's', 'a', 'i')

str = ''.join(tup) print(str)

## OUTPUT:

Dev Desai

## AIM:

*# Write a Python program to find the length of a tuple. # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

tuplex = tuple("Dev Desai") print(tuplex) print(len(tuplex))

## OUTPUT:

('D', 'e', 'v', ' ', 'D', 'e', 's', 'a', 'i') 9

## AIM:

*# Write a Python program to add member(s) in a set and clear a set # Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

sports={'Cricket','Football','Hockey'} print(sports)

sports.add('Kabaddi')

print(sports) sports.update(['Volleyball','Baseball','Tennis']) print(sports)

print(sports.clear())

## OUTPUT:

{'Hockey', 'Football', 'Cricket'}

{'Hockey', 'Football', 'Cricket', 'Kabaddi'}

{'Hockey', 'Football', 'Cricket', 'Baseball', 'Kabaddi', 'Tennis', 'Volleyball'}

None

## AIM:

*# Write a Python program to remove an item from a set if it is present in the set.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

fruits={'Mango','Apple','Orange','Grapes','Banana'} print(fruits)

fruits.remove('Banana') print(fruits)

## OUTPUT:

{'Grapes', 'Banana', 'Orange', 'Mango', 'Apple'}

{'Grapes', 'Orange', 'Mango', 'Apple'}

## AIM:

*# Write a Python program to create an intersection, Union, difference of sets.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

A = {0, 2, 4, 6, 8};

B = {1, 2, 3, 4, 5};

print('Intersection :', A.intersection(B)) print('Union :', A.union(B)) print('Difference :', A.difference(B))

## OUTPUT:

Intersection : {2, 4}

Union : {0, 1, 2, 3, 4, 5, 6, 8}

Difference : {0, 8, 6}

## AIM:

*# Write a Python program to find maximum and the minimum value in a set.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

numbers = {51, 110, 13, 5, 2, 200}

print(numbers)

print('Maximum :', max(numbers)) print('Minimum :', min(numbers))

## OUTPUT:

{2, 51, 5, 200, 13, 110}

Maximum : 200

Minimum : 2

## AIM:

*# Write a Python program to find the most common elements and their counts from list, tuple, dictionary.*

*# Developed By: Dev Desai(20CS015)*

*# https://github.com/devdesai0602/Programming-in-Python*

*#LIST*

print("For List") fruits=['apple','banana','orange','mango','mango','grapes','mango'] res = max(set(fruits), key = fruits.count) number=fruits.count(res)

print("Element with highest frequency :",res) print("Number of times element repeated :", number) print("\n")

*#TUPLE*

print("For Tuple") fruits\_tuple=('apple','banana','orange','mango','orange','grapes','ora nge')

res = max(set(fruits\_tuple), key = fruits\_tuple.count) number=fruits\_tuple.count(res)

print("Element with highest frequency :",res) print("Number of times element repeated :", number) print("\n")

*#DICTIONARY*

print("For Dictionary") student={

'name1':'ABC',

'name2':'PQR',

'name3':'ABC',

'name4':'XYZ',

'name5':'LMN',

'name6':'IJK',

}

tp=tuple(student.values()) count=0

element=tp[0]

**for** i **in** tp:

ctr=tp.count(i)

**if**(ctr>count): count=ctr element=i

print("Element with highest frequency :",element)

## OUTPUT:

For List

Element with highest frequency : mango Number of times element repeated : 3

For Tuple

Element with highest frequency : orange Number of times element repeated : 3

For Dictionary

Element with highest frequency : ABC