GANPAT UNIVERSITY
U. V. PATEL COLLEGE OF ENGINEERING
B.Tech CE/IT Semester IV
2CEIT404: Python Programming

Practical-5: Dictionary

1. Create and print a dictionary that contains keys a,b,c,d with their values 1,2,3 and 4 respectively using curly bracket syntax and 'dict' in built function.

Code:

```
d1  = {"a":1,"b":2,"c":3,"d":4}
print(dict)
```

Output:

```
PS C:\Users\Vandan\Desktop\Practical of python> pythe
al_5-1.py"
{'a': 1, 'b': 2, 'c': 3, 'd': 4}
PS C:\Users\Vandan\Desktop\Practical of python>
```

2. Using above created dictionary perform following operations
   1)Write a code to print out the value of a, d, and c.
   2) Calculate the sum of the value of a,b,c,d and print it.
   3)Add a new key, value pair (e,5) to the dictionary and print dictionary.

Code:

```
d1  = {"a":1,"b":2,"c":3,"d":4}
print(d1["a"])
print(d1["b"])
print(d1["c"])
print(d1["d"])
```

Output:

```
PS C:\Users\Vandan\Desktop\Practical of python> python
eRunnerFile.py"
1
2
3
4
PS C:\Users\Vandan\Desktop\Practical of python>
```

Code:

```
d2  = {"a":1,"b":2,"c":3,"d":4}
sum = 0
for i in d2:
    sum = sum + d2[i]
print("Sum=",sum)
```

Output:

```
PS C:\Users\Vandan\Desktop\Practical of python> python -u "c
eRunnerFile.py"
Sum= 10
PS C:\Users\Vandan\Desktop\Practical of python>
```

Code:

```
d1  = {"a":1,"b":2,"c":3,"d":4}
d1.update({'e':5})
print(d1)
d1.update([('e',6)])
print(d1)
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\Vandan\Desktop\Practical of python> python
eRunnerFile.py"
{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 5}
{'a': 1, 'b': 2, 'c': 3, 'd': 4, 'e': 6}
PS C:\Users\Vandan\Desktop\Practical of python>
```

3. Filter the dictionary by removing all items with a value greater than 2.
   d={“a”:1, “b”:2, “c”:3, “d”:4, “d”:5}

Code:

```
d1  = {"a":1,"b":2,"c":3,"d":4}

for i in list(d1.keys()):
   if d1[i]>2:
       d1.pop(i)
print(d1)
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

PS C:\Users\Vandan\Desktop\Practical of python> python
al_5-3.py"
{'a': 1, 'b': 2}
PS C:\Users\Vandan\Desktop\Practical of python>
```

4. Print the names which contain the character 'a' from the dictionary containing 2 lists of male and female students given below.
   {"male": ["Tom", "Charlie", "Harry", "Frank"],
   "female":["Sarah", "Huda", "Samantha", "Emily", "Elizabeth"] }

Code:

```
d1={"male": ["Tom", "Charlie", "Harry", "Frank"],"female":["Sarah", "Huda",
"Samantha", "Emily", "Elizabeth"] }
for i in d1.values():
      for j in i:
        if('a' in j):
           print(j)
```

Output:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

PS C:\Users\Vandan\Desktop\Practical of python> python
aal_5-4.py"
Charlie
Harry
Frank
Sarah
Huda
Samantha
Elizabeth
```

5. You have 4 films in the dictionary with the age and number of seats available as indicated below. Write a programme to ask for a film and check for the person that he is eligible to watch movie, also check ticket availability and movie availability in the cinema.
   "War": [3,5],
   "Bourne": [18,5],
   "Gully boy": [15,5],
   "Uri":[12, 5]

Code:

```
d1={"War": [3,5],"Bourne": [18,5],"Gully boy": [15,5],"Uri":[12, 5]}
movie =input("enter a movie name :")
if movie in d1.keys():
     print ("{} movie is available".format(movie))
     tkt=int(input("enter a number of tickets you want to buy : "))
     if(d1[movie][1]>tkt):
        print("tickets are available")
        age=int(input("enter the age of youngest person in your group : "))
        if(age>d1[movie][0]):
            print("you are successfully buy tickets")
        else:
            print("youngest person is too small for watch movie")
     else:
         print ("only {} tickets are availabel".formate(d1[movie][1]))
else:
   print("the movie is not avilabel")
d1[movie][1]-=tkt
print ("{} tickets are remaining".format(d1[movie][1]))
```

Output:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

PS C:\Users\Vandan\Desktop\Practical of python> python
al_5-5.py"
enter a movie name :Bourne
Bourne movie is available
enter a number of tickets you want to buy : 2
tickets are available
enter the age of youngest person in your group : 19
you are successfully buy tickets
3 tickets are remaining
PS C:\Users\Vandan\Desktop\Practical of python>
```