

PYTHON FOR DATA SCIENCE

ASSIGNMENT-2

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

Sample Dictionary (n = 5) :

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

SOURCE CODE :

```
n = int(input("Enter a range for dictionary : "))    #input range for your dictionary
d = {}                                              #create an empty dictionary
for x in range(1,n+1):
    d[x] = x*x

print("The required dictionary is ",d)             #printing your required dictionary
```

OUTPUT :

```
== RESTART: C:/Users/dell/OneDrive/Documents/python files/PFDS_ASSIGNMENT_2.py =
Enter a range for dictionary : 4
The required dictionary is  {1: 1, 2: 4, 3: 9, 4: 16}
>>>
== RESTART: C:/Users/dell/OneDrive/Documents/python files/PFDS_ASSIGNMENT_2.py =
Enter a range for dictionary : 7
The required dictionary is  {1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49}
>>>
```

Q 2. Write a Python script to check whether a given key already exists in a dictionary.

SOURCE CODE :

```
my_dict = {'apple': 1, 'banana': 2, 'orange': 3}    #create a dictionary
print(f'your dictionary is {my_dict}')              #print the created dictionary

key =input("Enter the key want to check : ")        #take input for check key presence
if key in my_dict:
```

```
print(f'{key} exists in the dictionary.')
```

else:

```
print(f'{key} does not exist in the dictionary.')
```

OUTPUT :

```
== RESTART: C:/Users/dell/OneDrive/Documents/python files/PFDS_ASSIGNMENT_2.py ==
your dictionary is {'apple': 1, 'banana': 2, 'orange': 3}
Enter the key want to check : apple
apple exists in the dictionary.
>>>
== RESTART: C:/Users/dell/OneDrive/Documents/python files/PFDS_ASSIGNMENT_2.py ==
your dictionary is {'apple': 1, 'banana': 2, 'orange': 3}
Enter the key want to check : 3
3 does not exist in the dictionary.
```

Q 3. Write a program to count the occurrence of each element of a list .

SOURCE CODE :

```
l1=eval(input("Enter a list: "))          #input a list from use
l2 = {}                                  #create an empty dictionary
for i in l1:
    l2[i] = l1.count(i)                  #inserted element in dictionary
print("The occurrence of each element in the given list are : ")
print(l2)
```

OUTPUT :

```
== RESTART: C:/Users/dell/OneDrive/Documents/python files/PFDS_ASSIGNMENT_2.py ==
Enter a list: 1,7,5,4,3,7,34,7,3,6
The occurrence of each element in the given list are :
{1: 1, 7: 3, 5: 1, 4: 1, 3: 2, 34: 1, 6: 1}
>>>
```

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