

**Netaji Subhash Engineering College**  
**Department of Computer Science & Engineering**  
**B. Tech CSE 2<sup>nd</sup> Year 3<sup>rd</sup> Semester**  
**2023-2024**

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**Name of the Course: IT Workshop (Python)**

**Course Code: PCC-CS393**

**Name of the Student: Ahana Biswas**

**Class Roll No.: 108**

**University Roll No.: 10900122110**

**Date of Experiment: 08/09/2023**

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**Assignment No.: A6\_01**

**Problem Statement:**

Write a program to create a dictionary that contains (i, i\*i) such that i is an integral number between 1 and n (both included).

**Python Code:**

```
n=int(input("Enter the range: "))
d={}
for i in range(1,n+1):
    d[i]=i*i
print(d)
```

**Sample Output(s):**

Enter the range: 10

{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}

### **Assignment No.: A6\_02**

#### **Problem Statement:**

Write a program to count the numbers of characters in a string and store them in a dictionary.

#### **Python Code:**

```
s=input("Enter a string: ")
d={}
for i in s:
    if i in d.keys():
        d[i]+=1
    else:
        d[i]=1
print(d)
```

#### **Sample Output(s):**

```
Enter a string: characters
{'c': 2, 'h': 1, 'a': 2, 'r': 2, 't': 1, 'e': 1, 's': 1}
```

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### **Assignment No.: A6\_03**

#### **Problem Statement:**

Write a program to create a dictionary by combining two lists 'name' for employee name and 'salary' for employee salary. Use the list 'name' as the key and 'salary' as the value of dictionary elements.

#### **Python Code:**

```
l1=input("Enter the names of employees (separated by a space): ").split()
l2=input("Enter the salaries of employees (separated by a space): ").split()
d={}
for i in range(len(l1)):
    d[l1[i]]=l2[i]
print(d)
```

#### **Sample Output(s):**

Enter the names of employees (separated by a space): Rohit Rahul Ayan Arittra Vaibhav

Enter the salaries of employees (separated by a space): 50000 65000 35000 45000 55000

```
{'Rohit': '50000', 'Rahul': '65000', 'Ayan': '35000', 'Arittra': '45000', 'Vaibhav': '55000'}
```

**Assignment No.: A6\_04**

**Problem Statement:**

Write a program to input player's name (string) and runs (integer) scored for n number of players where n should be input from the keyboard. Store the player's details in a dictionary called 'cricket'. After preparing the dictionary, input the player's name and print the runs scored by the player otherwise returns '-1' if the player's name is not found.

**Python Code:**

```
n=int(input("Enter the no. of players: "))
cricket={}
for i in range(n):
    name=input("Enter the name: ")
    run=int(input("Enter runs: "))
    cricket[name]=run
name=input("Enter the name you want to search: ")
if name in cricket:
    print(cricket[name])
else:
    print(-1)
```

**Sample Output(s):**

```
Enter the no. of players: 5
Enter the name: Rohit Sharma
Enter runs: 55
Enter the name: Shubhman Gill
Enter runs: 54
Enter the name: Virat Kohli
Enter runs: 53
Enter the name: K.L.Rahul
Enter runs: 52
```

Enter the name: Ishan Kishan  
Enter runs: 51  
Enter the name you want to search: Virat Kohli  
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### **Assignment No.: A6\_05**

#### **Problem Statement:**

Write a program to sort (ascending order) a dictionary by value.

#### **Python Code:**

```
n=int(input("Enter the no. of pairs: "))
d={}
temp=[]
for i in range(n):
    key=input("Enter the key: ")
    val=int(input("Enter value: "))
    d[key]=val
lst=list(d.values())
lst.sort()
for i in lst:
    for k in d:
        if d[k]==i:
            if k not in temp:
                temp.append(k)
            print(k,":",i)
```

#### **Sample Output(s):**

Enter the no. of pairs: 5  
Enter the key: D  
Enter value: 68

Enter the key: B  
Enter value: 66  
Enter the key: E  
Enter value: 69  
Enter the key: C  
Enter value: 67  
Enter the key: A  
Enter value: 65  
A : 65  
B : 66  
C : 67  
D : 68  
E : 69

#### **Assignment No.: A6\_06**

##### **Problem Statement:**

Write a program to merge two dictionaries.

##### **Python Code:**

```
n1=int(input("Enter the no. of pairs for D1: "))
d1={}
d2={}
for i in range(n1):
    key=input("Enter the key: ")
    val=int(input("Enter value: "))
    d1[key]=val
n2=int(input("Enter the no. of pairs for D2: "))
for i in range(n2):
    key=input("Enter the key: ")
    val=int(input("Enter value: "))
    d2[key]=val
for i in d2:
    d1[i]=d2[i]
print(d1)
```

##### **Sample Output(s):**

Enter the no. of pairs for D1: 5

Enter the key: A

Enter value: 65

Enter the key: B

Enter value: 66

Enter the key: C

Enter value: 67

Enter the key: D

Enter value: 68

Enter the key: E

Enter value: 69

Enter the no. of pairs for D2: 5

Enter the key: F

Enter value: 70

Enter the key: G

Enter value: 71

Enter the key: H

Enter value: 72

Enter the key: I

Enter value: 73

Enter the key: J

Enter value: 74

{'A': 65, 'B': 66, 'C': 67, 'D': 68, 'E': 69, 'F': 70, 'G': 71, 'H': 72, 'I': 73, 'J': 74}