Lab 4

Name: Shashank Bagda **Date: 13 / 07 / 22**

Enrollment No: 92100133020

CO1: To write, test, and debug simple Python programs

CO2: To implement Python programs with conditional, loops and functions

Python Code and Output:

```
dir1 = {"apple":20,"orange":30}
print(dir1)
print(type(dir1))
print(dir1.keys())
print(dir1.values())
d2 = {"water melon":10,"banana":5}
print(d2)
```

```
{'apple': 20, 'orange': 30}
<class 'dict'>
dict_keys(['apple', 'orange'])
dict_values([20, 30])
{'water melon': 10, 'banana': 5}
```

```
d1={'Mango':20,'AC':30}
print(d1)

d2={'Watermelon':10, 'Banana':5}
d1.update(d2)
print(d1)

d1['Apple']=100
d1['Orange']=200
print(d1)

d1.pop('Apple')
print(d1)
```

```
{'Mango': 20, 'AC': 30}
{'Mango': 20, 'AC': 30, 'Watermelon': 10, 'Banana': 5}
{'Mango': 20, 'AC': 30, 'Watermelon': 10, 'Banana': 5, 'Apple': 100, 'Orange': 200}
{'Mango': 20, 'AC': 30, 'Watermelon': 10, 'Banana': 5, 'Orange': 200}
```

```
s1 = {10,"abc",5.6,8+1j}
print(s1)
print(type(s1))
s1.add("Shashank")
print(s1)
```

```
{10, (8+1j), 'abc', 5.6}
<class 'set'>
{5.6, 10, (8+1j), 'abc', 'Shashank'}
```

```
[4] s2 = {2,3,4,6}
    s3 = {4,5,6,7}
    print(s2.union(s3))
    print(s2.intersection(s3))
```

```
{2, 3, 4, 5, 6, 7}
{4, 6}
```

```
s1.add("Hello")
print(s1)
s1.pop()
print(s1)
s1.remove("Shashank")
print(s1)
s1.update(["World"])
print(s1)
```

```
{5.6, 10, (8+1j), 'abc', 'Shashank', 'Hello'}
{10, (8+1j), 'abc', 'Shashank', 'Hello'}
{10, (8+1j), 'abc', 'Hello'}
{10, (8+1j), 'abc', 'World', 'Hello'}
```

```
i=1
while i <=10:
  print(i)
  i = i+1

n=4
i=1
while i<=10:
  print(n,"X",i,"=",i*n)
  i = i+1
```

```
1
2
3
4
5
6
7
8
9
10
4 X 1 = 4
4 X 2 = 8
4 X 3 = 12
4 X 4 = 16
4 X 5 = 20
4 X 6 = 24
4 X 7 = 28
4 X 8 = 32
4 X 9 = 36
4 X 10 = 40
```

```
[9] n=15
    i = 2
    j=0
    while i <= n/2:
      if (n % i) == 0:
        j==0
      break
      i = i+1
    if j==0:
      print(n,"is a prime number")
    else:
      print("is not a prime number")
```

```
15 is a prime number
```

```
n=5
f=1
while n>=1:
  f = f * n
  n = n - 1
print("factorial is",f)
```

```
factorial is 120
```