EX:1C(I) To Compute the Factorial of a Given Number Using While Loop

Program Code:

```
n=int(input("Enter a number:"))
i=1
fact=1
while(i<=n):
    fact=fact*i
    i=i+1
print("The factorial of ",n," is:",fact)
```

Output:

```
Enter a number:5
The factorial of  5  is: 120
```


Result:

The output is successfully verified

```
dlist.sort()
print(dlist)


#print(dlist.clear())


print("Illustration of list functions")
dlist=[23,45,31,53,62]
print(len(dlist))
print(max(dlist))
print(min(dlist))
```

Output:

```
Illustration of creating a list
[1, 2, 3, 4]
[1, 'john', 55.5]
[111, [1, 'clara', 75.5]]
Illustration of traversing a list
23
31
62
Illustration of traversing a list using negative index
62
31
23
Illustration of slicing operator
[23, 45, 31]
```

EX:3A(I) To Write a Python Script To Sort (Ascending And Descending) a Dictionary By Value

Program Code:

```
import operator

d={1:2,3:4,4:3,2:1,0:0}

print('Original dictionary:',d)

sorted_d=sorted(d.items(),key=operator.itemgetter(0))

print('dictionary in ascending order by value:',sorted_d)

sorted_d=dict(sorted(d.items(),key=operator.itemgetter(0),reverse=True))

print('Dictionary in descending order by value:',sorted_d)
```

Output:

```
Original dictionary: {1: 2, 3: 4, 4: 3, 2: 1, 0: 0}

dictionary in ascending order by value:[(0, 0), (1, 2), (2, 1), (3, 4), (4, 3)]

Dictionary in descending order by value: {4: 3, 3: 4, 2: 1, 1: 2, 0: 0}
```


Result:

The output is successfully verified

EX:4A A Python Program to Demonstrate Command Line Arguments

Program Code:

```
import sys

sys.argv = ["script_name.py", "1", "2", "3"]

n = len(sys.argv)

print("Total arguments passed:", n)

print("\nName of Python script:", sys.argv[0])

print("\nArguments passed:", end = " ")

for i in range(1, n):

        print(sys.argv[i], end = " ")

Sum = 0

for i in range(1, n):

        Sum += int(sys.argv[i])

print("\n\nResult:", Sum)
```


Output:

Total arguments passed: 4

Name of Python script: script_name.py

Arguments passed: 1 2 3

Result: 6

Result:

The output is successfully verified