Aim:

Write a program to perform the following operations on a list.

i. Addition

ii. Insertion

iii. Slicing

Input Format:

- The first line should take space-separated integers to form the list.
- The second line of input should prompt the user to enter two integers separated by a space representing the key and value for the insertion.
- The third line should take space-separated start index and end index for slicing.

Output Format:

- First line should display the initial list.
- Second line should display the list after insertion.
- Third line should display the list after slicing.

Example 1:

Input:

1 2 3 4 5

0 5

0 3

Output

[1, 2, 3, 4, 5]

[5, 1, 2, 3, 4, 5]

[5, 1, 2]

Note:

- In Python, adding an element with append adds it to the end of a list. To insert an element at a specific index, insert operation need to be used.

Source Code:

listOp.py

```python
list=list(map(int,input().split(" ")))
a,b=map(int,input("").split(" "))
c,d=map(int,input("").split(" "))
print(list)
list.insert(a,b)
print(list)
new_list=list[c:d]
print(new_list)
```

Execution Results - All test cases have succeeded!

Test Case - 1

User Output

1 2 3 4 5
0 5
0 3
[1, 2, 3, 4, 5]
[5, 1, 2, 3, 4, 5]
[5, 1, 2]

Test Case - 2
User Output
12 52 65 41 23 89 654
7 485
0 8
[12, 52, 65, 41, 23, 89, 654]
[12, 52, 65, 41, 23, 89, 654, 485]
[12, 52, 65, 41, 23, 89, 654, 485]