

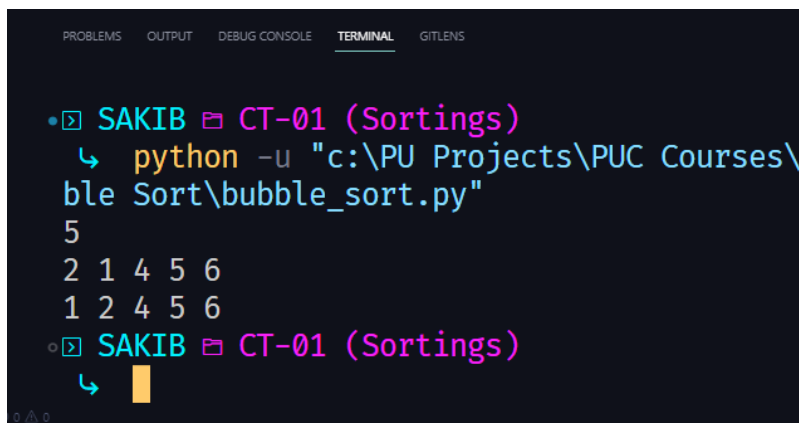
Problem Statement : Write down the code for Bubble Sort Algorithm in Python.

Objective : To Implement the Bubble Sort Algorithm Using Python

Source Code :

```
1 n = int(input())
2 a = list(map(int, input().split()))
3
4 for i in range(n - 1):
5     for j in range(i + 1, n):
6         if a[i] > a[j]:
7             a[i], a[j] = a[j], a[i]
8
9 for num in a:
10     print(num, end=" ")
11
```

Input & Output :



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS
• SAKIB CT-01 (Sortings)
  ↳ python -u "c:\PU Projects\PUC Courses\ble Sort\bubble_sort.py"
5
2 1 4 5 6
1 2 4 5 6
• SAKIB CT-01 (Sortings)
  ↳
```

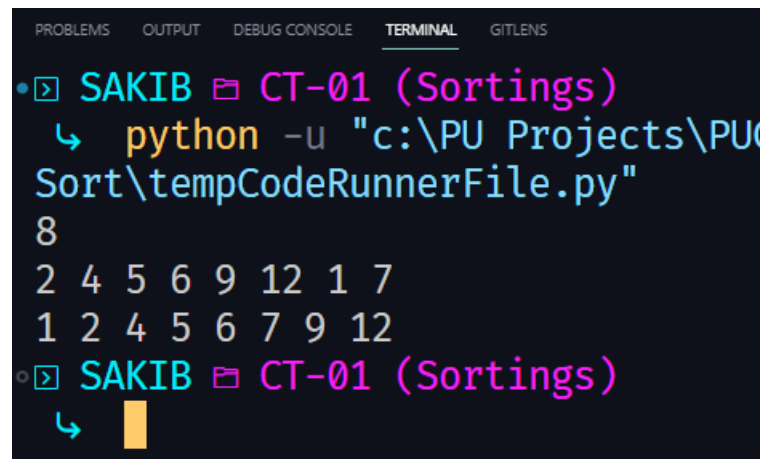
Problem Statement : Write down the code for Selection Sort Algorithm in Python.

Objective : To Implement the Selection Sort Algorithm Using Python

Source Code :

```
1 n = int(input())
2 a = list(map(int, input().split()))
3
4 for i in range(n - 1):
5     minIndex = i
6     for j in range(i + 1, n):
7         if a[j] < a[minIndex]:
8             a[j], a[minIndex] = a[minIndex], a[j]
9
10 for num in a:
11     print(num, end=" ")
12
```

Input & Output :



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  GITLENS
• SAKIB  CT-01 (Sortings)
  ↳ python -u "c:\PU Projects\PUO Sort\tempCodeRunnerFile.py"
8
2 4 5 6 9 12 1 7
1 2 4 5 6 7 9 12
• SAKIB  CT-01 (Sortings)
  ↳
```

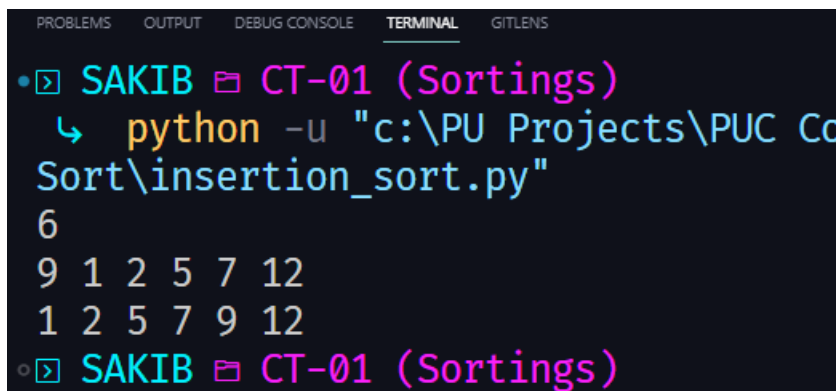
Problem Statement : Write down the code for Insertion Sort Algorithm in Python.

Objective : To Implement the Insertion Sort Algorithm Using Python

Source Code :

```
1 n = int(input())
2 a = list(map(int, input().split()))
3
4 for i in range(1, n):
5     key = a[i]
6     j = i - 1
7     while j >= 0 and a[j] > key:
8         a[j + 1] = a[j]
9         j -= 1
10    a[j + 1] = key
11
12 for i in range(n):
13     print(a[i], end=" ")
14
15
```

Input & Output :



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  GITLENS
• SAKIB  CT-01 (Sortings)
  ↳ python -u "c:\PU Projects\PUC Co Sort\insertion_sort.py"
6
9 1 2 5 7 12
1 2 5 7 9 12
• SAKIB  CT-01 (Sortings)
```