

```

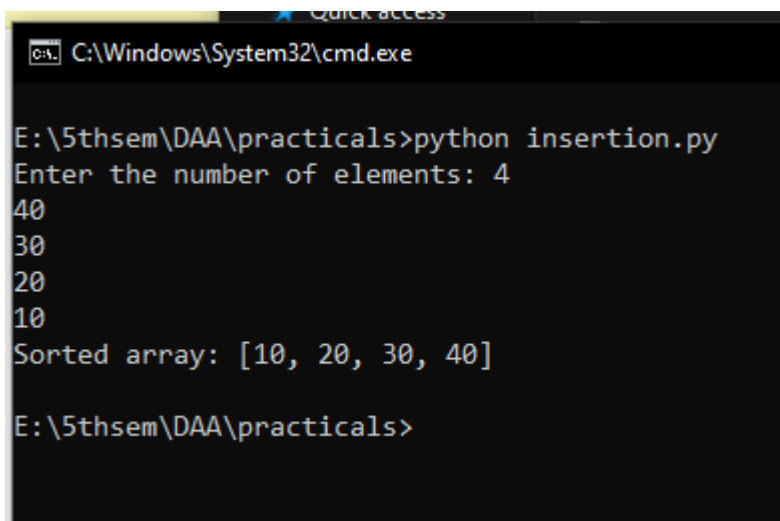
def insertion_sort(arr):
    for i in range(1, len(arr)):
        key = arr[i]
        j = i - 1
        while j >= 0 and key < arr[j]:
            arr[j + 1] = arr[j]
            j -= 1
        arr[j + 1] = key
    return arr # Return the sorted array

n = int(input("Enter the number of elements: "))
arr = []
for i in range(n):
    element = int(input())
    arr.append(element)

# Sort the array
sorted_arr = insertion_sort(arr)

# Print the sorted array
print("Sorted array:", sorted_arr)

```



The screenshot shows a Windows command prompt window with the title bar "C:\Windows\System32\cmd.exe". The prompt is at "E:\5thsem\DAA\practicals>". The user has entered "python insertion.py". The program prompts "Enter the number of elements: 4". The user has entered the numbers 40, 30, 20, and 10 on separate lines. The program then outputs "Sorted array: [10, 20, 30, 40]". The prompt is now "E:\5thsem\DAA\practicals>".

```

C:\Windows\System32\cmd.exe
E:\5thsem\DAA\practicals>python insertion.py
Enter the number of elements: 4
40
30
20
10
Sorted array: [10, 20, 30, 40]
E:\5thsem\DAA\practicals>

```

```
def selection_sort(arr):  
    n=len(arr)  
    for i in range(n-1):  
        min_index=i  
        for j in range(i+1,n):  
            if arr[j]<arr[min_index]:  
                min_index = j  
            arr[i],arr[min_index]=arr[min_index],arr[i]  
    return arr
```

```
n = int(input("Enter the number of elements: "))
```

```
arr = []
```

```
for i in range(n):
```

```
    element = int(input())
```

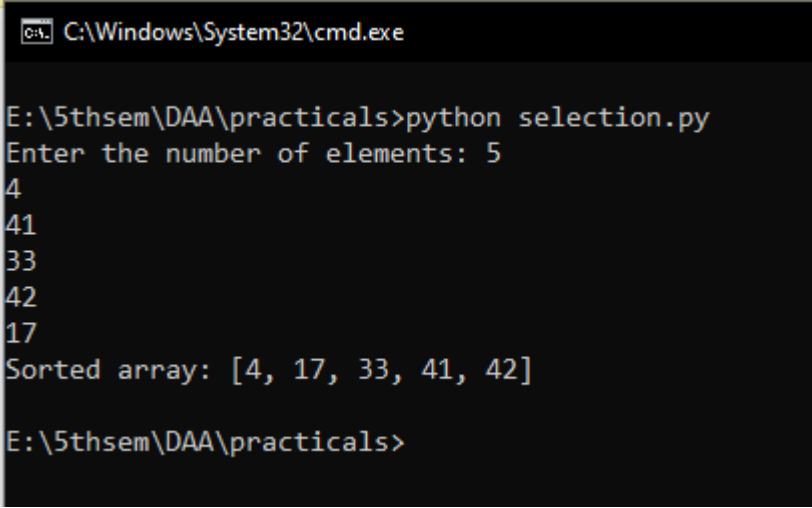
```
    arr.append(element)
```

```
# Sort the array
```

```
sorted_arr = selection_sort(arr)
```

```
# Print the sorted array
```

```
print("Sorted array:", sorted_arr)
```



```
C:\Windows\System32\cmd.exe  
  
E:\5thsem\DAA\practicals>python selection.py  
Enter the number of elements: 5  
4  
41  
33  
42  
17  
Sorted array: [4, 17, 33, 41, 42]  
  
E:\5thsem\DAA\practicals>
```