

linearAndSentinelsearch.py •

▶ □ ...

C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > linearAndSentinelsearch.py > linearsearch

```
1
2 # MAHESH JAGTAP ROLL NO. 21027 SE A
3 # GRP B 11.a) Write a Python program to store roll numbers of student in array
4 # who attended training program in random order.
5 # Write function for searching whether particular student attended training program or not,
6 # using Linear search and Sentinel search.
7
8 def linearsearch(arr, n, x):
9     i = flag = 0
10    while (i < len(arr)):
11        if (arr[i] == x):
12            flag = 1
13            break
14        i = i + 1
15
16    if flag == 1:
17        print("ROLL NO.", x, "Was Present for the Prgram...")
18    else:
19        print("ROLL NO.", x, "Was Absent for the Prgram...")
20
21
22 def sentinelsearch(arr, n, x):
```

linearAndSentinelsearch.py •



C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > linearAndSentinelsearch.py > linearsearch

```
21
22 def sentinelsearch(arr, n, x):
23     last = arr[n - 1]
24     arr[n - 1] = x
25     i = 0
26     while (arr[i] != x):
27         i += 1
28     arr[n - 1] = last
29
30     if ((i < n - 1) or (x == arr[n - 1])):
31         print("ROLL NO.", x, "Was Present for the Program...")
32     else:
33         print("ROLL NO.", x, "Was Absent for the Program...")
34
35 arr=[]
36 n=int(input("ENTER THE NUMBER OF STUDENTS ATTENDED THE PROGRAM :"))
37 for i in range(0,n):
38     roll = int(input("Enter roll no : "))
39     arr.append(roll)
40 print("THIS IS THE LIST OF ROLL NUMBERS : ",arr)
41
42 print("Which search method do u want to use:")
```



linearAndSentinelsearch.py •

▶ □ ...

C: > Users > Jagta > OneDrive > Desktop > PYTHON TUTORIAL > python programs > linearAndSentinelsearch.py > linearsearch

```
37 for i in range(0,n):
38     roll = int(input("Enter roll no : "))
39     arr.append(roll)
40 print("THIS IS THE LIST OF ROLL NUMBERS : ",arr)
41
42 print("Which search method do u want to use:")
43 print("1.Linear search")
44 print("2.sentinel search")
45 c = int(input("ENTER YOUR CHOICE (1,2) : "))
46 if (c == 1):
47     print("OK,WE WILL USE LINEAR SEARCH METHOD")
48     x = int(input("Enter roll no to be search :"))
49     linearsearch(arr, n, x)
50 elif (c == 2):
51     print("OK,WE WILL USE SENTINEL SEARCH METHOD")
52     x = int(input("Enter roll no to be search :"))
53     sentinelsearch(arr, n, x)
54 else:
55     print("INVALID")
56
57
```

```
1 def linearsearch(arr, n, x):
2     for i in range(0, n):
3         if arr[i] == x:
4             print("Element found at index", i)
5             return i
6     print("Element not found")
7     return -1
8
9 def sentinelsearch(arr, n, x):
10    arr.append(x)
11    for i in range(0, n+1):
12        if arr[i] == x:
13            print("Element found at index", i)
14            return i
15    print("Element not found")
16    return -1
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

6: Code

+ □ 🗑️ ✓ ×

```
PS C:\Users\Jagta> python -u "c:\Users\Jagta\OneDrive\Desktop\PYTHON TUTORIAL\python programs\linearAndSentinelsearch
PS C:\Users\Jagta> python -u "c:\Users\Jagta\OneDrive\Desktop\PYTHON TUTORIAL\python programs\linearAndSentinelsearch.py"
ENTER THE NUMBER OF STUDENTS ATTENDED THE PROGRAM :6
Enter roll no : 43
Enter roll no : 18
Enter roll no : 67
Enter roll no : 01
Enter roll no : 36
Enter roll no : 27
THIS IS THE LIST OF ROLL NUMBERS : [43, 18, 67, 1, 36, 27]
Which search method do u want to use:
1.Linear search
2.sentinel search
ENTER YOUR CHOICE (1,2) : 2
OK,WE WILL USE SENTINEL SEARCH METHOD
Enter roll no to be search :27
ROLL NO. 27 Was Present for the Program...
PS C:\Users\Jagta> █
```


PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

6: Code



Copyright (C) Microsoft Corporation. All rights reserved.

```
PS C:\Users\Jagta> python -u "c:\Users\Jagta\OneDrive\Desktop\PYTHON TUTORIAL\python programs\linearAndSentinelsearch.py"
```

```
ENTER THE NUMBER OF STUDENTS ATTENDED THE PROGRAM :6
```

```
Enter roll no : 12
```

```
Enter roll no : 34
```

```
Enter roll no : 57
```

```
Enter roll no : 9
```

```
Enter roll no : 29
```

```
Enter roll no : 22
```

```
THIS IS THE LIST OF ROLL NUMBERS : [12, 34, 57, 9, 29, 22]
```

```
Which search method do u want to use:
```

```
1.Linear search
```

```
2.sentinel search
```

```
ENTER YOUR CHOICE (1,2) : 1
```

```
OK,WE WILL USE LINEAR SEARCH METHOD
```

```
Enter roll no to be search :25
```

```
ROLL NO. 25 Was Absent for the Prgram...
```

```
PS C:\Users\Jagta> python -u "c:\Users\Jagta\OneDrive\Desktop\PYTHON TUTORIAL\python programs\linearAndSentinelsearch
```