# DP-S018 (E047)

Solved Challenges **0/1** 



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# **Browsing Center Computers**

#### ID:11159 **Solved By 449 Users**

In a browsing center, the owner accepts the next day's browsing slot booking from **N** customers via internet. Each browsing slot contains the **start time** and the **end time** in 24-hr format. The browsing center owner must have at least M computers so that no one is waiting. The browsing solt of N customers are passed as the input. The program must print the minimum number of computers **M** so that no one is waiting in the center.

# **Boundary Condition(s):**

1 <= N <= 10^5

#### **Input Format:**

The first line contains N.

The next N lines, each containing the start time and the end time of a browsing slot.

#### **Output Format:**

The first line contains M.

# **Example Input/Output 1:**

Input:

6

9:00 11:00

9:30 10:30

9:30 12:00

9:45 13:00

11:00 15:00

10:00 14:00

# Output:

5

# Explanation:

The browsing center owner must have at least 5 computers so that no one is waiting.

At 10:00, there must be at least 5 computers.

# **Example Input/Output 2:**

Input:

9:00 15:00

10:00 10:30

11:00 13:00

13:00 14:00

14:30 15:00

14:30 16:00

Output:

# **Max Execution Time Limit: 100 millisecs**

```
Ambiance
                                                            Python3 (3.x)
                                                                      X
                                                                 Reset
 1 N = int(input())
 2 start = []
 3 end = []
 4
   for index in range(N):
 5
         temp = input().strip().split()
 6
         start.append(temp[0])
 7
         end.append(temp[1])
 8
 9
         hr,m = map(int,start[index].split(":"))
10
         start[index] = hr*60 + m
11
         hr,m = map(int,end[index].split(":"))
12
13
         end[index] = hr*60 + m
14
    start.sort()
15
16
    end.sort()
17
18
    computers=0
19
20
   first=0
21
    last=0
22
23
    while(first<N and last<N):</pre>
         currReq = (first-last)+1
24
25
         if(currReq>computers):
26
             computers = currReq
27
         if(start[first]<end[last]):</pre>
28
29
             first+=1
30
         else:
31
             last+=1
         while(first<N and last<N and start[first]>=end[last]):
32
33
             last+=1
34
    print(computers)
35
36
37
38
39
40
41
```

