

Problem 1450: Number of Students Doing Homework at a Given Time

Problem Information

Difficulty: Easy

Acceptance Rate: 75.73%

Paid Only: No

Tags: Array

Problem Description

Given two integer arrays `startTime` and `endTime` and given an integer `queryTime`.

The *i*th student started doing their homework at the time `startTime[i]` and finished it at time `endTime[i]`.

Return the number of students doing their homework at time `queryTime`. More formally, return the number of students where `queryTime` lays in the interval `[startTime[i], endTime[i]]` inclusive.

Example 1:

Input: `startTime = [1,2,3], endTime = [3,2,7], queryTime = 4` **Output:** 1 **Explanation:** We have 3 students where: The first student started doing homework at time 1 and finished at time 3 and wasn't doing anything at time 4. The second student started doing homework at time 2 and finished at time 2 and also wasn't doing anything at time 4. The third student started doing homework at time 3 and finished at time 7 and was the only student doing homework at time 4.

Example 2:

Input: `startTime = [4], endTime = [4], queryTime = 4` **Output:** 1 **Explanation:** The only student was doing their homework at the queryTime.

Constraints:

```
* `startTime.length == endTime.length` * `1 <= startTime.length <= 100` * `1 <= startTime[i] <= endTime[i] <= 1000` * `1 <= queryTime <= 1000`
```

Code Snippets

C++:

```
class Solution {  
public:  
    int busyStudent(vector<int>& startTime, vector<int>& endTime, int queryTime)  
    {  
  
    }  
};
```

Java:

```
class Solution {  
    public int busyStudent(int[] startTime, int[] endTime, int queryTime) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def busyStudent(self, startTime: List[int], endTime: List[int], queryTime:  
int) -> int:
```