Problem 1996: The Number of Weak Characters in the Game

Problem Information

Difficulty: Medium
Acceptance Rate: 44.34%
Paid Only: No
Tags: Array, Stack, Greedy, Sorting, Monotonic Stack

Problem Description

You are playing a game that contains multiple characters, and each of the characters has **two** main properties: **attack** and **defense**. You are given a 2D integer array `properties` where `properties[i] = [attacki, defensei]` represents the properties of the `ith` character in the game.

A character is said to be **weak** if any other character has **both** attack and defense levels **strictly greater** than this character's attack and defense levels. More formally, a character `i` is said to be **weak** if there exists another character `j` where `attackj > attacki` and `defensej > defensei`.

Return _the number of**weak** characters_.

Example 1:

Input: properties = [[5,5],[6,3],[3,6]] **Output:** 0 **Explanation:** No character has strictly greater attack and defense than the other.

Example 2:

Input: properties = [[2,2],[3,3]] **Output:** 1 **Explanation:** The first character is weak because the second character has a strictly greater attack and defense.

Example 3:

Input: properties = [[1,5],[10,4],[4,3]] **Output:** 1 **Explanation:** The third character is weak because the second character has a strictly greater attack and defense.

Constraints:

* `2 <= properties.length <= 105` * `properties[i].length == 2` * `1 <= attacki, defensei <= 105`

Code Snippets

C++:

```
class Solution {
public:
int numberOfWeakCharacters(vector<vector<int>>& properties) {

}
};
```

Java:

```
class Solution {
public int numberOfWeakCharacters(int[][] properties) {

}
}
```

Python3:

```
class Solution:
def numberOfWeakCharacters(self, properties: List[List[int]]) -> int:
```