

# ASSIGNMENT-1

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Batch - 19

## Assignment 1: Maximum Non-Overlapping Meetings (Greedy)

### Problem Statement

You are given  $N$  meetings. Each meeting has a start time  $S_i$  and an end time  $E_i$ . You want to attend the maximum number of meetings. You can attend meeting  $j$  after meeting  $i$  only if the start time of meeting  $j$  is strictly greater than the end time of meeting  $i$  ( $S_j > E_i$ ). For each test case, output the maximum number of meetings that can be attended.

### Input Format

The first line contains an integer  $T$ , the number of test cases. For each test case:

- The first line contains an integer  $N$ .
- The next  $N$  lines each contain two integers  $S_i$  and  $E_i$ .

Output Format: For each test case, print a single integer: the maximum number of meetings that can be attended. Constraints

- $1 \leq T \leq 20$
- $1 \leq N \leq 200000$  (sum of  $N$  over all test cases  $\leq 200000$ )
- $0 \leq S_i < E_i \leq 10^9$

### Sample Input

```
1
3
1 3
2 4
3 5
```

Expected Output 2



