ECE30018 Problem Solving Studio, Fall 2023

C3. Job Interview

| Submission due: 1:00 PM, 22 Sep Fri

Job Interview

A company is hiring new software developers. For N applicants, application reviews and programming tests were already made, and the score of an applicant P_i is determined as a pair of positive integers (x_i, y_i) where x_i is the application review score and y_i is the programming test score.

To arrange their job interviews, you are asked to group these N applicants according to the following rules:

1. Two applicants P_i and P_j must belong to a same group if (1) $x_i < x_j$ and $y_i > y_j$, or (2) $x_i > x_j$ and $y_i < y_j$, and
2. Groups must be formed as many as possible

Write a program that determines the maximum number of possible applicant groups for given scores

Requirements

- **Input**: Input is given as text via the standard input. The first line has one integers N for $1 \leq N \leq 8000$. From the second to the (N+1)-th lines, each line has two integers x_i and y_i for $0 \leq x_i \leq 1000000$ and $0 \leq y_i \leq 1000000$.
- **Output**: Print the maximum number of possible interview groups. Your program should return the answer within 0.5 second.
- **Test case example**

Input

```
4
8 6
15 6
20 10
14 12
```

Output

```
2
```

C3 Teams

Team No.	Members
301	소병찬, 이원빈
302	이준명, 최혜림
303	박세찬, 이신원
304	최소미, 백건하
305	백하현, 최정겸
306	전혜림, 강하림
307	나보림, 유건민
308	박민지, 오인혁