Offline 6: Greedy Algorithm

Problem Specification:

You are given the arrival times and departure times of some customers. You can serve one customer at a time. Their arrival and departure time may not be compatible with each other (i.e if they overlap) and you might not be able to serve all of them. Implement an algorithm to serve the maximum number of customers possible.

Input:

The first line of the input file will contain the number of customers, followed by the arrival and departure times of each customer in each line

For example:

11

8 12

0 6

5 7

3 8

12 14

1 4

3 5

5 9

6 10

7 11

2 13

Output:

The maximum number of customers that can be served and the arrival and departure times of the selected customers and their starting and finishing times. Output for the above input should be :

4

1 4

5 7

7 11

12 14

Submission Guidelines:

1. Create a directory with your 7-digit student id as its name.
2. Put all the source files only into the directory.
3. Zip the directory (compress in .zip format. Any other form like .rar, .7z, etc. is not acceptable).
4. Upload the .zip file on Moodle in the designated assignment submission link. For example, if your student id is xx05xxx, create a directory named xx05xxx. Put only your source files (.c, .cpp, .java, .h, etc.) into xx05xxx. Compress the directory xx05xxx into xx05xxx.zip and upload the xx05xxx.zip on Moodle.

Failure to follow the submission mentioned above guideline may result in up to a 10% penalty.

The unmodifiable deadline for this assignment is on 27 January at 11:55 PM