4 Imposter Calculator

The smartest monster in the world, Frank Einstein, loves to play Among Us (a murder mystery game where a number of crewmate players are to identify the imposter players among them that are out for blood). The only problem is, Frank keeps getting accused of being an imposter for stalking the other players while trying to find the real imposters.

He has simply had enough and has decided that he needs an Imposter Calculator to find imposters more efficiently. This calculator would be able to tell when an imposter "vents" or jumps the game map, which is something that only imposters can do.

This means that whenever a player goes into a room, but comes out of a different room, they have "vented." Frank proposes that if we build this calculator for him, he may just let us help him with his top-secret research project. We better get started!

4.1 Input

The first line of input will be two integers N and M separated by a single white-space. N represents the number of players and M represents the number of lines of input to follow.

The next M lines of input will be in the following format:

<player color><single white-space><room name><single white-space><I or O>

If a player enters a room, then it will be represented as an 'I', if they left a room, then it will be represented as an 'O'.

There will only be a single imposter, no more than 10 players, up to 7 different rooms, and up to 100 lines of input.

4.2 Output

The output should be two lines. One line with the player color that is the imposter followed by one line with the number of times they "vented", meaning they went into a room and came out of a different room.

Note when printing out the player color, keep the entire string lowercase.

Sample Input and Output are on the next page.

4.3 Sample Input/Output

Sample Input 1	Sample output 1
4 8 purple medbay I purple medbay O orange electrical I orange security O black electrical I black electrical O white admin I white admin O	orange 1
Sample input 2	Sample Output 2
4 10 red electrical I red electrical O blue weapons I green cafeteria I yellow medbay I green cafeteria O yellow medbay O blue shields O blue admin I blue cafeteria O	blue 2