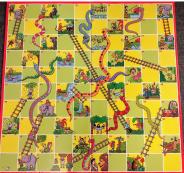
Snakes and Ladders Problem ID: a12p06snakesandladders

Write a python program that plays the legendary board game, Snakes and Ladders.

The game is played on a board with exactly $100~{\rm squares},$ numbered from 1 to 100.

The rules of the game are as follows:

- In each turn, a player rolls a die and moves forward by the same number of squares as indicated by the die.
- After having moved, if the player is located at the bottom of a ladder, the player moves up the ladder. If a player is instead located at the head of a snake, the player moves down to the tail of the snake.
- If a player rolls 6, then that player gets to roll the die again. It doesn't matter if the player just moved up a ladder or down a snake, they are still entitled to another roll.
- The player who is first to reach the last square wins.
- If a player is close to the last square and overshoots by rolling a number higher than required, then the player still moves to square 100 and wins the game.



Snakes and Ladder

The starter code includes a main() function and a function named roll_die() that shall be used to simulate the rolling of a single 6-sided die.

Input

First the program should prompt the user for n, the number of snakes and ladders on the board.

The second part of the input contains n lines, where each line i contains two integers s_i and e_i , separated by a space, indicating which squares on the board are connected by snakes or ladders, where s_i designates the starting square and e_i the end square of a particular connection.

If $s_i > e_i$ then the pair is considered to be a snake, but if $e_i > s_i$ then it will be a ladder.

Lastly the program should prompt the user for two names, p_1 and p_2 , the names of Player 1 and Player 2. The program then proceeds to play the game following the rules indicated above. Player 1 starts the game.

In the tests n will be restricted to $1 \le n \le 49$. It is guaranteed that no snake/ladder will overlap one another. The names p_1 and p_2 will be of length $1 \le |p_1|, |p_2| \le 10$.

Output

For each turn of the game the program should output the rolls and locations of the players as such:

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• "\{p\} rolled \{r\} and is now at \{d\}."
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where p is the name of the given player, r is the number that came up on the die, and d is the number of the destination square where the player ended up after moving according to the die. Additionally it should display one of these messages when players land on a start of a snake or a ladder:

- "Darn! A snake brought $\{p\}$ down to square $\{d'\}$."
- "Splendid! $\{p\}$ climbed a ladder up to square $\{d'\}$."

where d' is the square the snake or ladder took the player to. When the game is over, the program should output

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• "\{p\} won the game."
```

Sample Input 1	Sample Output 1
9	Joseph rolled
21 75	Donald rolled

```
5 and is now at square 5.
                                        5 and is now at square 5.
30 60
                          Joseph rolled 6 and is now at square 11.
7 18
                          Splendid! Joseph climbed a ladder up to square 26.
67 30
                          Joseph rolled 3 and is now at square 29.
85 94
                          Donald rolled 5 and is now at square 10.
89 60
                          Joseph rolled 5 and is now at square 34.
50 75
                          Donald rolled 6 and is now at square 16.
11 26
                          Donald rolled 2 and is now at square 18.
52 16
                          Joseph rolled 3 and is now at square 37.
                          Donald rolled 4 and is now at square 22.
Joseph
Donald
                          Joseph rolled 6 and is now at square 43.
                          Joseph rolled 3 and is now at square 46.
                          Donald rolled 3 and is now at square 25.
                          Joseph rolled 4 and is now at square 50.
                          Splendid! Joseph climbed a ladder up to square 75.
                          Donald rolled 6 and is now at square 31.
                          Donald rolled 2 and is now at square 33.
                          Joseph rolled 6 and is now at square 81.
                          Joseph rolled 3 and is now at square 84.
                          Donald rolled 1 and is now at square 34.
                          Joseph rolled 4 and is now at square 88.
                          Donald rolled 6 and is now at square 40.
                          Donald rolled 4 and is now at square 44.
                          Joseph rolled 1 and is now at square 89.
                          Darn! A snake brought Joseph down to square 60.
                          Donald rolled 5 and is now at square 49.
                          Joseph rolled 6 and is now at square 66.
                          Joseph rolled 6 and is now at square 72.
                          Joseph rolled 3 and is now at square 75.
                          Donald rolled 4 and is now at square 53.
                          Joseph rolled 4 and is now at square 79.
                          Donald rolled 6 and is now at square 59.
                          Donald rolled 3 and is now at square 62.
                          Joseph rolled 6 and is now at square 85.
                          Splendid! Joseph climbed a ladder up to square 94.
                          Joseph rolled 1 and is now at square 95.
                          Donald rolled 3 and is now at square 65.
                          Joseph rolled 5 and is now at square 100.
                          Joseph won the game.
```