Snakes and Ladders
Problem ID: a12p06snakesandladders


Snakes and Ladders

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

The game is played on a board with exactly 100 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.

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

Output

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

- "`{`p`} rolled {`r`} and is now at {`d`}`."

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

- "`{`p`} won the game`."

Sample Input 1	Sample Output 1
9 21 75 30 60 7 18 67 30 85 94 89 60 50 75 11 26 52 16 Joseph Donald	Joseph rolled 5 and is now at square 5. Donald rolled 5 and is now at square 5. Joseph rolled 6 and is now at square 11. Splendid! Joseph climbed a ladder up to square 26. Joseph rolled 3 and is now at square 29. Donald rolled 5 and is now at square 10. Joseph rolled 5 and is now at square 34. Donald rolled 6 and is now at square 16. Donald rolled 2 and is now at square 18. Joseph rolled 3 and is now at square 37. Donald rolled 4 and is now at square 22. 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.