Go moves Planning

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Purpose:

The purpose of this document is to outline our plans for the go moves program. Team lab no. 7. We will be using pseudo code to delineate how we will run all of our functions and what those functions will do.

Super structure:

Go is a tile game, a board of 9x9 tiles. There are two users and one places a white tile while the other places a black tile. The users alternate until one player wins. We are unconcerned with the winning conditions but are interested in two “rules”. 1) users alternate in turn 2) a stone may not be placed where another player has already placed one.

Super structure goes like so:

1) If board is not full

    2) Then : If board is not full
        2a) print out the board
        3) Then : Input User 1 place stone
        3a) if user enters stop then exit program
        4) Then : If Stone was placed where other stone exists
            5) Then : submit error message and go back to line 2

    6) Then : If board is not full
        6a)print out the board
        7) Then : Input User 2 place stone
        7a) if user enters stop: then exit program
        8) Then : If Stone was placed where other stone exists
            9) Then : submit error message and go back to line 6

10) Print out final board

Conditional statements:

Given that empty spaces are periods: .

1. **If board is not full** checks if all items in list of list X:X are not .’s

2. **If stone was placed where other stones exist** checks if the desired stone placement is not a .
3. **User entered stop** exit the main loop

Outputs

1. **Board** Every turn a board with the latest changes should be put out to the screen for user reference
2. **Error** In the case that a stone is requested to be placed in a location already occupied by a stone then the program should return a message stating that the user input an invalid set of coordinates.
3. **User entered stop**. If the user enters stop the program should output the final board

Inputs

1. **Coordinates** There is only one input opportunity for the user and that is a set of coordinates on where to place the stone. For each user the input is simply a space separated coordinate. So if I would like to place a stone in space (1,2) then one would simply need to enter 1 2 when prompted.

Example progression

['9', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['8', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['7', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['6', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['5', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['4', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['3', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['2', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['1', '.', '.', '.', '.', '.', '.', '.', '.', '.']
[' ', '1', '2', '3', '4', '5', '6', '7', '8', '9']
Please enter the coordinates of where you would like to place a stone (separated by a space), or enter 'stop' to end the game: 1 2
['9', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['8', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['7', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['6', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['5', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['4', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['3', '.', '.', '.', '.', '.', '.', '.', '.', '.']

['2', '●', '.', '.', '.', '.', '.', '.', '.', '.']
['1', '.', '.', '.', '.', '.', '.', '.', '.', '.']
[' ', '1', '2', '3', '4', '5', '6', '7', '8', '9']
Please enter the coordinates of where you would like to place a stone (separated by a space), or enter 'stop' to end the game: 1 3
['9', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['8', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['7', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['6', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['5', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['4', '.', '.', '.', '.', '.', '.', '.', '.', '.']
['3', '○', '.', '.', '.', '.', '.', '.', '.', '.']
['2', '●', '.', '.', '.', '.', '.', '.', '.', '.']
['1', '.', '.', '.', '.', '.', '.', '.', '.', '.']
[' ', '1', '2', '3', '4', '5', '6', '7', '8', '9']
Please enter the coordinates of where you would like to place a stone (separated by a space), or enter 'stop' to end the game: