Lab 1 - Tic Tac Toe

- Creating a board
  • Create a list called board that will start off with 10 empty values. Reason why 1-9 & not 0-8 because
  ➤ User can i/p from 1-9 not 0-8.

- Insert letter()
  Function takes 2 parameters: letter & pos. It will simply going to insert the given letter at the given position.

- spaceIsFree (pos)
  Function will simply tell us if the given space is free. Meaning it does not already contain a letter. It has one parameter, pos, which will be an integer from 1-9.

  ```
  def spaceIsFree (pos):
          return board [pos] == ' '
  ```

printBoard
This function takes the board as a parameter & will display it to console.

isWinner ()
This function will tell us if the given letter has won based on the current board. It has a parameters; bo (board) & le (letter). The letter must be a "X" or an "O". Check each possible winning line on the board & see if it is populated by the given letter.

main()
This function is what we will call to start up
game. It will be calling of the different
functions on the py & dictate the flow of
the prg

isBoardFull ()
This function takes board as parameter & will
simply return true if the board & false if it
is not.

playerMove ()
In this function we will be asking the user to
input a move & validating it. If the move is
valid we will add that letter to the board.
Otherwise we will continue to ask the user for input

CompMove ()
→ If there is a winning move take it.
→ If the player has a possible winning move on their turn
move into that position.
→ Take any one of the corners. If more than one is
available randomly decide.
→ Take the center position
→ take one of the edges. If more than one is available
randomly decide
→ If no move is possible the game is a tie

SelectRandom() - The function will randomly decide one
move to take given a list of possible positions.