

FinishedWorkingVersion_3

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1 Finished Working Version 3

1.1 How to Play

There are two players for the game.

The goal of the game is to get three noughts or crosses aligned within a 3x3 grid.

This can occur horizontally, vertically or diagonally.

If there no noughts or crosses aligned, the players have drawed and the game starts again.

```
In [3]: import random # For the AI to select placements within the board
        Player_1 = 'X'
        AI = 'O'

        def clear_board():
            board = [" ", " ", " ", " ", " ", " ", " ", " ", " "] # Creates empty spaces for the board
            return board

        def print_board(board): # Prints the board in a grid format
            print(' {} | {} | {} '.format(board[1], board[2], board[3]))
            print('-----')
            print(' {} | {} | {} '.format(board[4], board[5], board[6]))
            print('-----')
            print(' {} | {} | {} '.format(board[7], board[8], board[9]))

        def winner(char, board):
            if (board[1] == board[2] == board[3] == char or
                board[4] == board[5] == board[6] == char or
                board[7] == board[8] == board[9] == char or # Checks horizontal wins

                board[1] == board[4] == board[7] == char or
                board[2] == board[5] == board[8] == char or
                board[3] == board[6] == board[9] == char or # Check vertical wins

                board[1] == board[5] == board[9] == char or # Check diagonal wins
```



```

-----
  | X |
-----
  |   |
Computer Turn:
  |   |
-----
  | X |
-----
 0 |   |
Player One:
Select a position3
  |   | X
-----
  | X |
-----
 0 |   |
Computer Turn:
  |   | X
-----
  | X |
-----
 0 | 0 |
Player One:
Select a position9
  |   | X
-----
  | X |
-----
 0 | 0 | X
Player 1 wins!!!
Computer Turn:
  |   | X
-----
  | 0 |
-----
 0 | 0 | X
Player One:
Select a position6
  |   | X
-----
  | 0 | X
-----
 0 | 0 | X
Player 1 wins!!!
Computer Turn:

```

```
-----  
IndexError                                Traceback (most recent call last)  
  
<ipython-input-3-494618876555> in <module>()  
    66  
    67  
---> 68 Game()  
  
<ipython-input-3-494618876555> in Game()  
    61         print("Computer Turn:")  
    62         placement = random.randint(1,10)  
---> 63         board[placement] = AI  
    64         print_board(board)  
    65         player_win(Player_1,AI,board)  
  
IndexError: list assignment index out of range
```