



# Overview of the “Othello” Application

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# Start-Up Menu

After running the program, a start-up menu appears and allows users to determine how they want to play the game. Users can determine board size (up to 16 columns and rows), who goes first, the starting orientation of the pieces, and how the game should be won.

```
p5_gui.py - C:\Users\darryl\OneDrive\Documents\Previous Classes\ICS 32\Project 5 Final\Project 5 Fi...
File Edit Format Run Options Window Help

#Project 5. Darryl Mak #50693792
#Project 5 GUI

import p5_final_game_logic
import tkinter
import point
import p5_dialog
import p5_winner

class OthelloGUI:
    '''GUI for the actual Othello game'''
    def __init__(self, class_info: 'class of info'):

        self._root_window = tkinter.Tk()

        full_line = tkinter.Label(
            master = self._root_window, text = 'FULL OTHELLO', font = 'times')

        full_line.grid(
            row = 0, column = 0, padx = 20, pady = 5,
            sticky = tkinter.W + tkinter.S)

        #Score
        score_frame = tkinter.LabelFrame(
            master = self._root_window, text = 'Score:',
            font = 'Times')

        score_frame.grid(
            row = 1, column = 0, padx = 20, pady = 5,
            sticky = tkinter.W + tkinter.S)

        #Score:Black
        self._black_score_text = tkinter.StringVar()
        self._black_score_text.set('Black: 2')

        black_score = tkinter.Label(
            master = score_frame, textvariable = self._black_score_text, font = 'times')

        black_score.grid(
            row = 0, column = 0, padx = 10, pady = 0, sticky = tkinter.W)

        #Score:White
        self._white_score_text = tkinter.StringVar()
```

Ln: 1 Col: 0

tk

O, Hello! This is Othello.

Select number of rows: 8

Select number of columns: 8

Select Who Goes First: Black

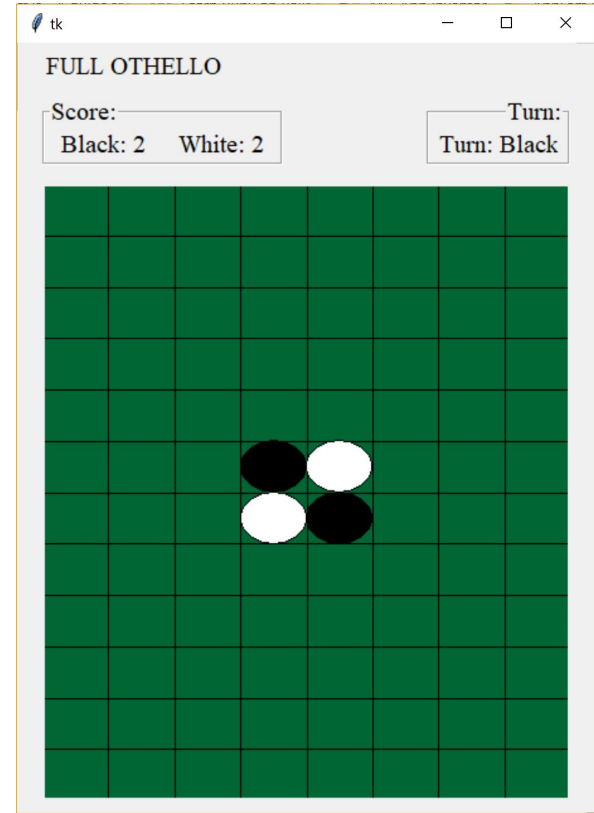
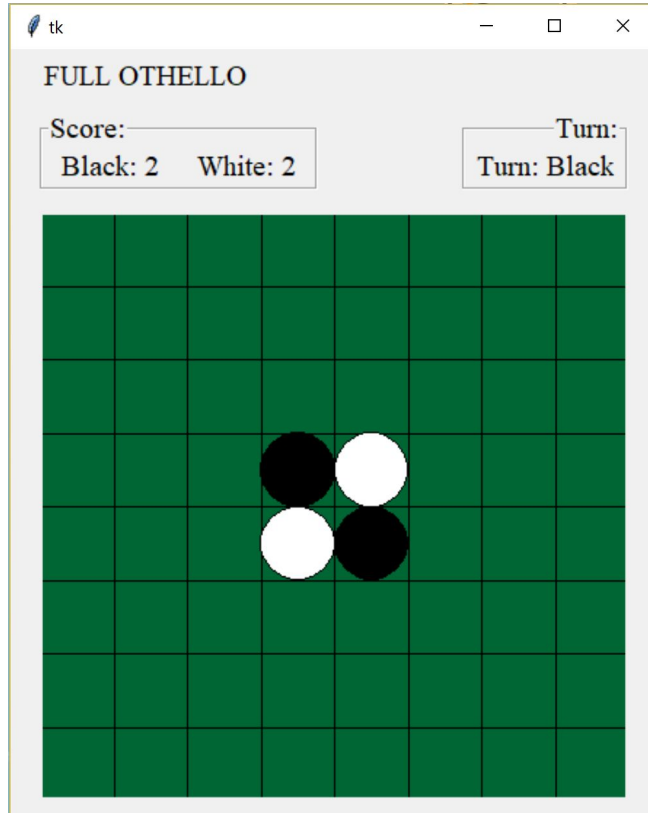
Which Piece is Top-Left: Black

How is the Game Won: >

OK Cancel

# The Game Starts!

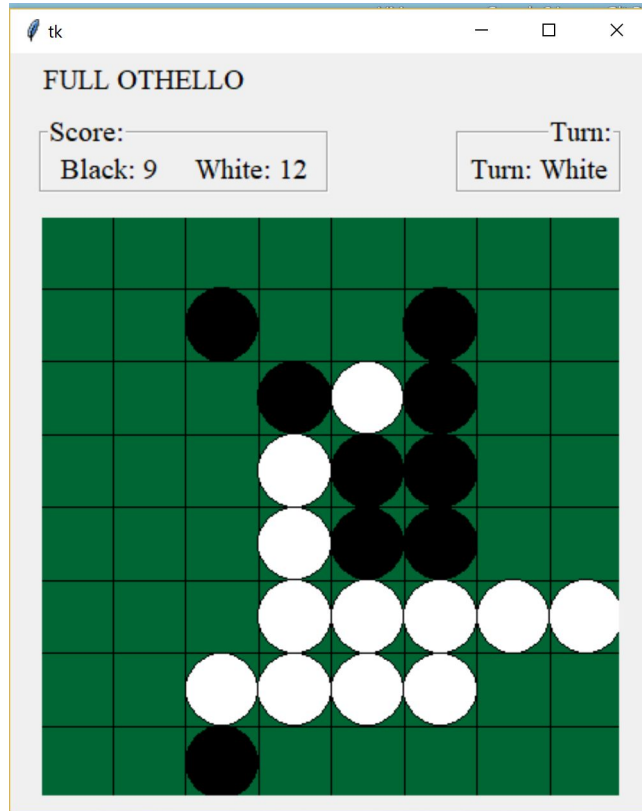
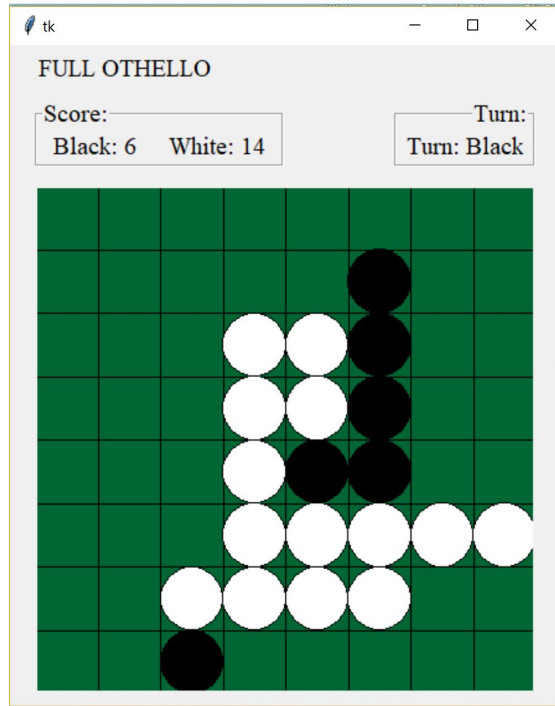
After the users press 'OK', the board is rendered. Notice that the application supports different board sizes (the board does not need to be an 8x8 square, and is completely resizable.)



A 8x8 and 12x8 Othello Game Board.

# Playing the Game

Two users can take turns playing the game by clicking on the square they wish to place their piece in, as long as it is a valid move. If square the user chooses is not a valid move, nothing happens. After each valid move, the score and the current turn are updated. The game continues until neither player can no longer make a valid move.

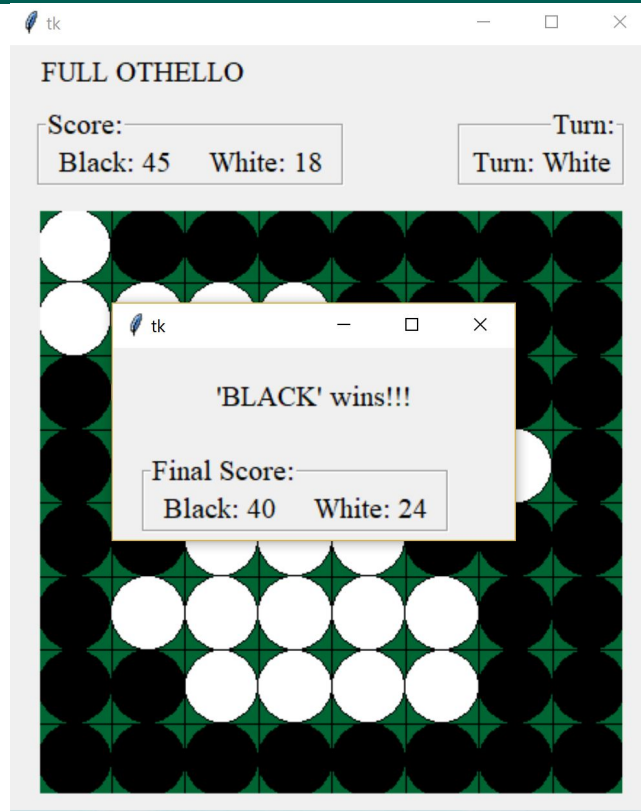


Consecutive turns made playing Othello. After each turn, the Score and Turn boxes update to keep users informed of the score.

# Ending the Game and Determining the Winner.

When neither player can make a move, the game is over. The score is calculated and the winner is determined (based on what the users specified in the start-up menu). The board locks, and pop-up tells the users who the winner is (WHITE or BLACK).





After no more valid moves are determined, the scores are updated and a winner is decided.

