Programming Project #2

CIS 296 – University of Michigan – Dearborn
Prof. John P. Baugh

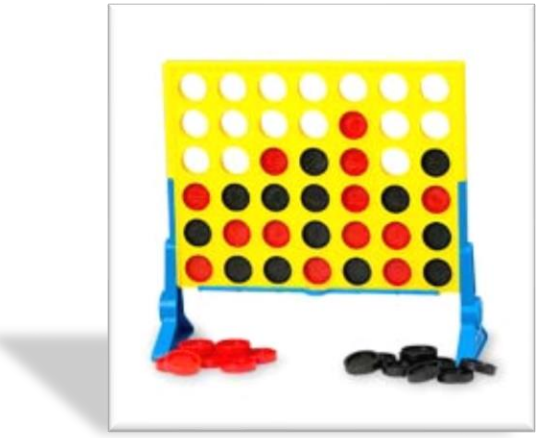
Points: _____ / 125
Due Date: November 12, 2018 at 11:59 p.m.

Objectives

- To become familiar with JavaFX
- To learn more about program state

Instructions

For this assignment, you will implement a GUI and gameplay for a very popular two-player game, **Connect Four**. Each of the players has either **black** or **red** colored discs that he/she will drop down into 7 column by 6 row grid. The initial discs will go to the bottom. A disc may only be placed either onto the bottom or on top of another disc (of either color.) The game continues until one of the players gets four in a row, or until the board fills up and there is no winner.



You will have to keep track of various program state data and game mechanics, such as:

- Whose turn it is
- Is a particular move valid?
    - Remember, a disc must have either the bottom of the game board below it, or another disc below it
- After each move, check to see if there is a winner
    - A player can win with four discs arranged in any of the following ways:
        - vertically (up and down)
        - horizontally (left and right)
        - diagonally (at an angle down and to the right or down and to the left)
- If the game board is full or not

References/Help

https://en.wikipedia.org/wiki/Connect_Four

Deliverables / Submission Instructions

- You need to turn in your source code (just the .java files) **zipped up**
    - They should be submitted to Canvas under the appropriate assignment directory. **Just name the zip folder/file Proj2.zip** – Canvas automatically attaches your name to it.