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Connect 4 Semester Project

Gist of the Game

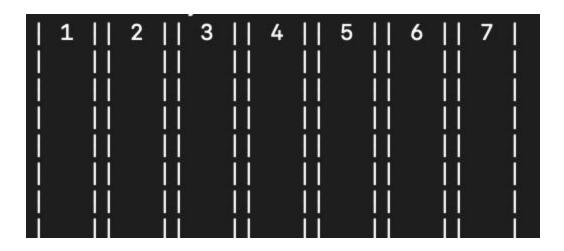
 Connect 4 has a 6 row by 7 column game board in which players will take turns dropping disc down columns. The first person to get 4 disc in a row whether it be horizontally, vertically, or diagonally wins the game.

Procedure of Game

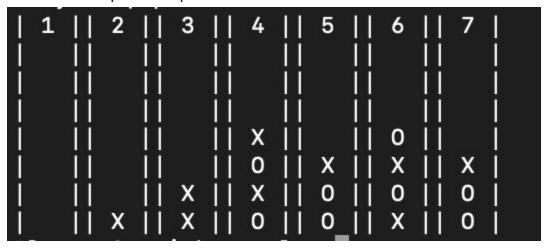
- The Connect4 Board is displayed in the user window.
- o In each turn, the player selects a coordinate to place his/her marker.
- The marker fills up the bottom-most open spot.
- The markers will continuously stack upon each other until the row is full.
- If the row happens to be full, the computer will print out an error message and ask the user to choose another row. ("That row is full! Please choose another row.")
- As players go with their turns, the board will become more and more full until a connect4 is reached
- Once the computer recognizes a Connect4, a winning message will pop up.
 ("Congratulations! You have won Connect4.")
- If the game recognizes no one won the game, It will display a message ("Draw")
- After displaying the winner message, the computer will ask if the users want to replay the game. ("Would you like to restart the game?")
- If the user says yes, the process is repeated over again until a new winner is found.
- The board will be wiped clean in the event the players decide to play again.
- If the user says no, the computer throws a ("Goodbye!") message and exits the game.

Our Code

- To create the board, we created two functions one to build the board and one to display the board. Both of these functions implemented nested for loops
- Our Board:



- The main function is where the game happens. Messages are prompted in which players are instructed to place their discs.
- o Spaces fill up with Xs and Os which indicate the two different disc colors



- Once the game recognizes 4 in a row, it will display winner message
- Functions/Topics Used
 - Arrays(Create Board)
 - Void functions
 - o For Loops and Nested For Loops
 - o If statements
 - o Boolean Variables
 - Passing by Reference