Period: 3
Group Members: Aiden Tan, Ya Qi Chew
Group Name: Connect4
Project Title: Connect4

Description:
Our project is a Connect 4 which two players would take turns placing game pieces one at a time onto the Grid. The players would decide on a grid size before they start the game. After their chosen size grid would show and they will take turns placing game pieces until one player wins.

Functions:

Class	Function Name	Description
Connect4	setup() : void	Set the size of screen
Connect4	choseGridSize() : void	Dependig on the number of rows and columns chosen by the players, it would set the variable rows and columns to those numbers.
Connect4	drawGrid() : void	Depending on the set rows and columns chosen by the player, thie method would split the screen size evenly to disrepute them amongst the grids and draw out the grid.
Connect4	initializeBoard() : void	This would initialize the 2D array board to contain the values of the x and y coordinates of each grid.
Connect4	draw() : void	If grid size is chosen, then it would call drawGrid(). If winner is chosen then its would call on drawWinsScreen().
Connect4	keyPressed() : void	Allow for the player to choose the size of the grid
Connect4	drawWinsScreen() : void	Draw the screen saying who won after the player wins
Connect4	mousePressed() : void	Based on the where the player clicks on the screen, it would call placeGamePiece for the player
Connect4	whoIsTheWinner(color c) : Player	Based on the game, it would return who the winner is and print the words corresponding with the player, and if it's a tie it would return null and print the words corresponding with it.

Connect4	checkWinner() : void	Checks the board, rows by rows, column by column, and diagonals by diagonals to check if the player wins if they win they will print the win screen if not the game would continue.
Connect4	reset() : void	Reset board after every game to the screen which the player would choose the size of the grid.
Board	Board(float x, float y)	Sets the x and y of the grid according to the parameters, and set the color of the grid to 250 (white).
Board	setColor(color Color) : void	Set the color of the grid
Board	getGridX() : float	Return the x coordinate of the grid
Board	getGridY() : float	Return the y coordinate of the grid
Board	getColor() : color	Return the color of the grid
Player	Player(color playerColor, int rows, int columns)	Set the player color, and row and columns.
Player	changeDim(int r, int c) : void	Set the rows and columns values to the one set by this method
Player	addTurn() : void	Increase the turn value of the player by one
Player	resetTurn() : void	Reset the turn value to 0.
Player	getColor() : color	Return the color of the player
Player	addWin() : void	Increase the win value of the player by one
Player	getWins() : int	Return the value of win
Player	placeGamePiece(Board[][] board) : void	Changes the color of the grid based on where the player clicks on the screen

Log:

Aiden started the project with the basics like the setup and the draw method. He also worked on the choseGridSize() and keyPressed() which allows for the user to choose the size of the grid of their game. When he was working on that I worked on drawGrid() which would draw the size grid depending on what the player chose. I then started to work on the method placeGamePiece(), which working I started to create the two other classes, Board and Player. I started to add new methods and variables into each of the classes as I worked on placeGamePiece(). Aiden started working on the methods that were related to when a player

wins, like checkWin(), and drawWinnerScreen(). When I ran into problems with placeGamePiece(), I asked Aiden for help.

How Does It Work?:

1. Type the number of rows you would like and click enter.
2. Type the number of columns you would like and click enter
3. Once the grid show, each player takes turn clicking on the column they would like to place their game piece
4. When the game is over, rather it be a tie, or one player wins, the screen would show a white screen indicating who won.
5. Click space to reset the game