PA4 - Ultimate TicTacToe Game

CEN4010

12/5/2021

T4

Upon starting the program a user may select a theme from a drop-down menu. The default theme is labeled "Default" and there are also options of "Blue", "Dark", and "Cursed".

The user must specify values for *m, n,* and *k* that define the rules of the game board.

-m and *n* correspond to the dimensions (rows and columns, respectively) of the size of the tic-tac-toe board the user wishes to play on.

-k corresponds to the score, or amount of marks a player needs to make in a row, column, or diagonal to be victorious.

Upon pressing the "Submit" button, the game board is generated to the user's theme and game specifications. Before proceeding to begin the game, the user must select a type of player and a corresponding mark. The left player "player one" always goes first and always plays as 'X' per standard rules. The right player "player two" always plays 'O' and goes second. The user must select if a player is controlled by a human or a choice between a standard computer-controlled player or an advanced or "hard" difficulty computer-controlled player before beginning the game by pressing "Start".

The game ends when victory is declared, or a draw is found.

During play if the timer for the player runs out that player loses.

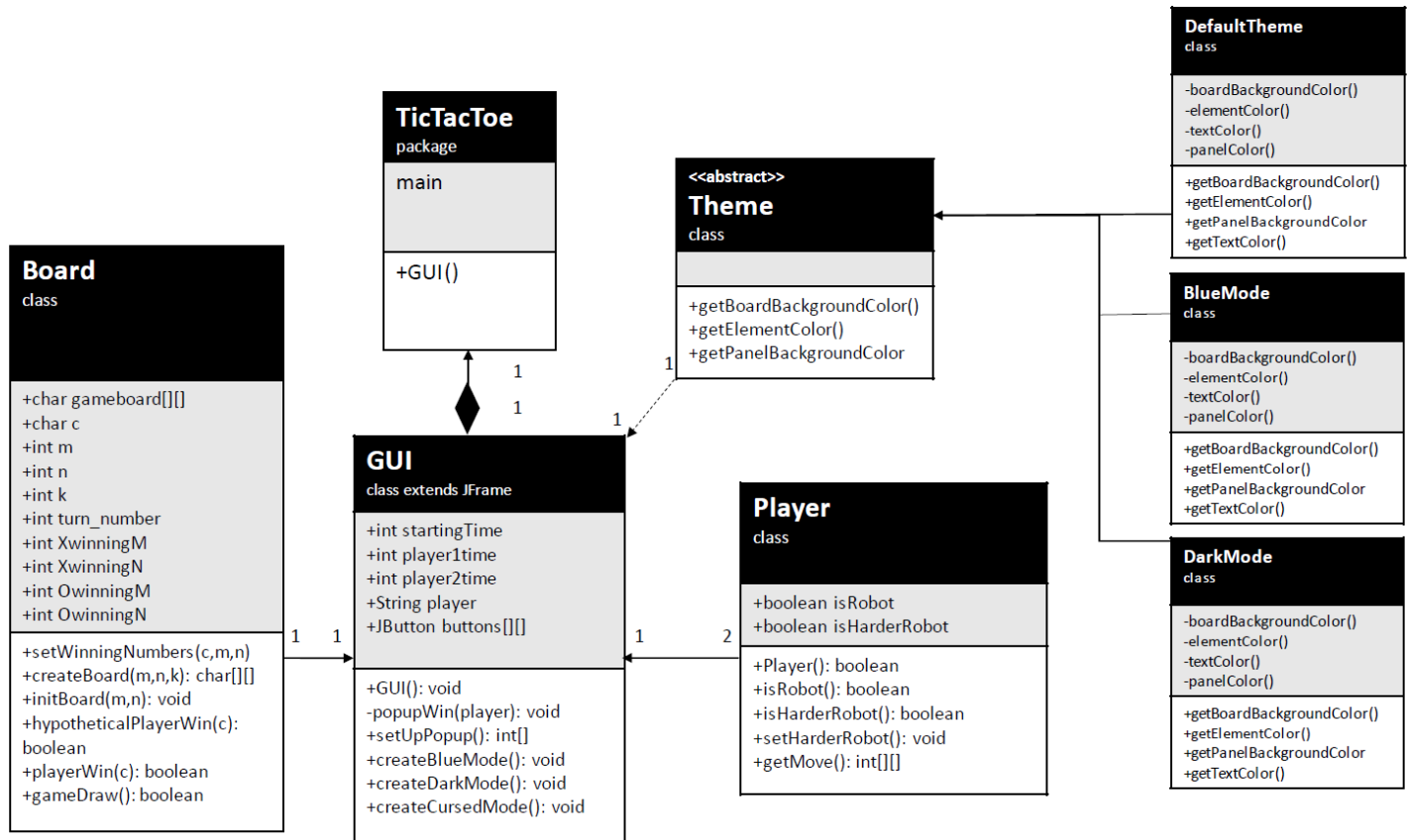If either player gets *k* or more in a row, that player is victorious.

If the board fills up before a victory or loss is declared the game ties and is over.

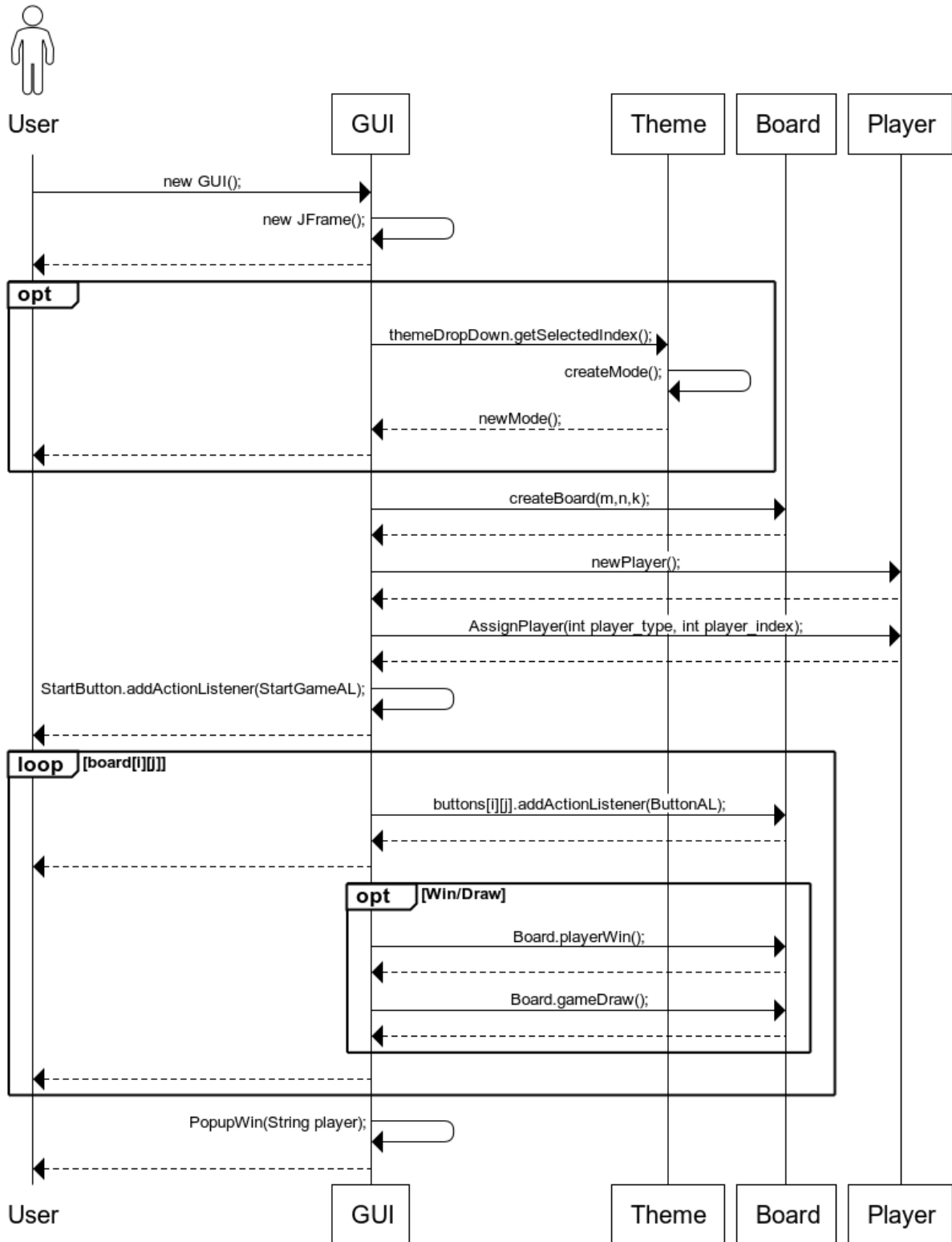To replay the user must relaunch the application.

Use Cases

Actor	System Response
1. [Optional] Player selects a GUI Theme from the drop down menu.	
	2. A GUI theme is applied based upon user selection.
3. Player inputs m, n, and k.	
	4. The board is presented with the specifications made by the player.
5. Player selects which player is controlled by a human or computer and whether the computer is standard or hard difficulty and presses "Start".	
	6. Players are initialized and the application begins the game
7. Player makes a move	
	8. Game freezes inactive player timer and unfreezes the other 9. Check if player move is made with enough time left on the timer 10. Check if a winning combination has been made 11. Check if next player input results in a win or draw
12. Repeat process 7-12 until win or draw condition is met	
	13. Pop-up window appears to display game results; P1 win, P2 win, P1 out of time, P2 out of time, or game draw. 14. Grid and buttons disabled.
15. Player clicks 'X' on frame to close window and exit the app.	

Class Diagram

DefaultTheme
class

-boardBackgroundColor()
-elementColor()
-textColor()
-panelColor()

+getBoardBackgroundColor()
+getElementColor()
+getPanelBackgroundColor
+getTextColor()

TicTacToe
package

main

+GUI()

<>
Theme
class

+getBoardBackgroundColor()
+getElementColor()
+getPanelBackgroundColor

BlueMode
class

-boardBackgroundColor()
-elementColor()
-textColor()
-panelColor()

+getBoardBackgroundColor()
+getElementColor()
+getPanelBackgroundColor
+getTextColor()

Board
class

+char gameboard[][]
+char c
+int m
+int n
+int k
+int turn_number
+int XwinningM
+int XwinningN
+int OwinningM
+int OwinningN

+setWinningNumbers(c,m,n)
+createBoard(m,n,k): char[][]
+initBoard(m,n): void
+hypotheticalPlayerWin(c):
boolean
+playerWin(c): boolean
+gameDraw(): boolean

GUI
class extends JFrame

+int startingTime
+int player1time
+int player2time
+String player
+JButton buttons[][]

+GUI(): void
-popupWin(player): void
+setUpPopup(): int[]
+createBlueMode(): void
+createDarkMode(): void
+createCursedMode(): void

Player
class

+boolean isRobot
+boolean isHarderRobot

+Player(): boolean
+isRobot(): boolean
+isHarderRobot(): boolean
+setHarderRobot(): void
+getMove(): int[][]

DarkMode
class

-boardBackgroundColor()
-elementColor()
-textColor()
-panelColor()

+getBoardBackgroundColor()
+getElementColor()
+getPanelBackgroundColor
+getTextColor()

1
1

1

1

1

1

1

1

2

TicTacToe

User   **GUI**   **Theme**   **Board**   **Player**

User → GUI: new GUI();

GUI → GUI: new JFrame();

GUI ⇢ User

opt

GUI → Theme: themeDropDown.getSelectedIndex();

Theme → Theme: createMode();

Theme ⇢ GUI: newMode();

GUI ⇢ User

GUI → Board: createBoard(m,n,k);

Board ⇢ GUI

GUI → Player: newPlayer();

Player ⇢ GUI

GUI → Player: AssignPlayer(int player_type, int player_index);

Player ⇢ GUI

GUI → GUI: StartButton.addActionListener(StartGameAL);

GUI ⇢ User

loop [board[i][j]]

GUI → Board: buttons[i][j].addActionListener(ButtonAL);

Board ⇢ GUI

GUI ⇢ User

    opt [Win/Draw]

    GUI → Board: Board.playerWin();

    Board ⇢ GUI

    GUI → Board: Board.gameDraw();

    Board ⇢ GUI

GUI ⇢ User

GUI → GUI: PopupWin(String player);

GUI ⇢ User

User   **GUI**   **Theme**   **Board**   **Player**

System Test Cases

Test Case 1

Purpose:

        1.   Verify all themes function

Requirement Traceability:

        1

Setup:

Obtain the most current version of the tic tac toe app

Follow the directions below for each of the three themes under test (default theme, dark theme, cursed theme)

Test Data:

Action	Input	Expected Output
Launch the application		The application setup GUI appears
Verify All theme modes appear	Click the drop-down button in the combo box	Verify that all three themes appear: Default Theme, Dark Theme, and CURSED MODE
Select a theme	Select Theme under test. Test must be repeated for all 3 available themes	All elements of the setup GUI are changed to match the theming selected
Begin Game	Click Submit (or OH NO! if using CURSED MODE)	If m n and k were not specified, a 3x3 tic tac toe game matching theming specified

Test Case 2

Purpose:

        1.   Verify m and n dimensions function for tic tac toe array

Requirement Traceability:

        2

Setup:

Obtain the most current version of the tic tac toe app

Follow the directions below.

Test Data:

Action	Input	Expected Output
Launch the application		The application setup GUI appears

Input *m* and *n*	Click in the text box corresponding to *m* and *n* and input a number then click submit	The tic tac toe grid will have the dimensions *m* and *n* as specified by the user. E.g., if *m* is 3 and *n* is 3 a normal board appears

Test Case 3

Purpose:

   1. Verify all computer players are working and being displayed as intended

Requirement Traceability:

   2

Setup:

Obtain the most current version of the tic tac toe app

Follow the directions below.

Test Data:

Action	Input	Expected Output
Launch the application		The application setup GUI appears
Input *m* and *n*	Click in the text box corresponding to *m* and *n* and input a number then click submit, no input would default *m* and *n* to 3	The tic tac toe grid will have the dimensions *m* and *n* as specified by the user. E.g., if *m* is 3 and *n* is 3 a normal board appears
Check player drop boxes	Click in both combo boxes to check if all 3 player types are available.	All combo boxes contain human, computer, and harder computer
Select Player type	Select two types of players to engage in tic tac toe with each other and click submit	Game begins with either player interaction or computer interaction playing

Unit Test Coverage Report

Element	Coverage	Covered Instructions	Missed Instructions	Total Instructions
> PA4	26.2 %	1,103	3,106	4,209

Commit Log

```
C:\Users\nhsbi\git\T4>git log
commit 9965e3e9182ac6598cee7d22000a9ab27eaaf031 (HEAD -> main, origin/main)
commit 9965e3e9182ac6598cee7d22000a9ab27eaaf031 (HEAD -> main, origin/main)
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Dec 5 18:18:10 2021 -0500

    owo you dropped a 1 when you meant a 2

commit 53e993a724d592a922e61eb9e97e0f7a2dc028aa
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Dec 5 16:57:40 2021 -0500

    modified playerclass to be more elastic with getMove

commit 528ce081b22da7f1f8dbeac4d56f911040995851
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Dec 5 16:20:52 2021 -0500

    color fixes on Mac OS

commit 75c0afb04242e68eccc88c4747091e178ae8f658
Author: marat <marat@ubuntu>
Date:   Sun Dec 5 15:58:11 2021 -0500

    added theme

commit 70ee023fc1f6c1371379566ddf4516e73a6e7455
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Dec 5 11:47:16 2021 -0500

    DID IT

commit 451db8f3f0203b34341bd3f8f594dbf725a44051
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Dec 5 11:35:21 2021 -0500

    Deity level AI implemented

commit a34159844ba562718a981b1254310805f6aa1d81
Author: Billy <Billy@10.0.0.244>
Date:   Sat Dec 4 22:13:21 2021 -0500

    fixed counter that broke somehow

commit adea6abb5e2ca115d03b1685ad1e6d0104c12323
Author: Billy <Billy@10.0.0.244>
Date:   Sat Dec 4 22:03:55 2021 -0500

    every day I am improving...

commit 740b3f8ae7f137e860ef249c53760f4de9f15e12
Author: Billy <Billy@10.0.0.244>
Date:   Sat Dec 4 21:23:01 2021 -0500

    gitting closer

commit bb89fc62fb9967508f454489e082686fac49edf6
Author: Billy <Billy@10.0.0.244>
Date:   Sat Dec 4 20:59:16 2021 -0500

    hard computer update
```

```
commit fc9151736a88ab4fa135c31a793e22c7625d2a8f
Author: Billy <Billy@DESKTOP-NBPSLK6>
Date:   Sat Dec 4 13:57:30 2021 -0500

    added harder AI

commit bb160985fe9ba58e9a053154cb0532e41d87b6d3
Author: alejandrokatz <n01362083@unf.edu>
Date:   Tue Nov 23 14:24:35 2021 -0500

    added MikuPanel

commit aba02609a3b5c78b0841c4cdf5e13714065e3003
Author: alejandrokatz <n01362083@unf.edu>
Date:   Tue Nov 23 13:51:42 2021 -0500

    Help Marat is forcing me to code

commit 6556cdc75574de74ef71dfffb97e785a51924f83
Author: Thecodebilly <N01401127@unf.edu>
Date:   Tue Nov 23 06:00:08 2021 -0500

    added junit

commit f2d8ad77854e609a9e6102651addadd41f00924f
Author: Thecodebilly <N01401127@unf.edu>
Date:   Tue Nov 23 05:55:11 2021 -0500

    corrected setup

commit 819fe25955efd7ce01400adeb38677c5e7cdadd6
Author: Thecodebilly <N01401127@unf.edu>
Date:   Tue Nov 23 05:45:20 2021 -0500

    added java

commit 4e560ad93c676807aa2b592552cea15352580e1e
Author: Thecodebilly <N01401127@unf.edu>
Date:   Tue Nov 23 05:44:46 2021 -0500

    # WARNING: head commit changed in the meantime

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main
    image

commit b9faf714f21dc660b7f27bded2956b3ab1ad39de
Author: alejandrokatz <n01362083@unf.edu>
Date:   Mon Nov 22 15:30:03 2021 -0500

    Added theme menu, moved some setup logic to main, changed GUI
    constructor

commit d797e87408dc4d0d3ed09d8fd8510b280960554e
Author: alejandrokatz <n01362083@unf.edu>
Date:   Mon Nov 22 15:06:41 2021 -0500

    copied files

commit e6ba82b97ebd37971616fa3c916cade34de05c83
Author: alejandrokatz <n01362083@unf.edu>
Date:   Mon Nov 22 14:56:08 2021 -0500

    added PA4 directory

commit 693a0d2a6d2629e2b506961e99cae23926f939f1
Merge: 108bd3d b467102
```

Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Nov 14 17:13:56 2021 -0500

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 108bd3d414332a64cbd2520d438e48800b17dfa1
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Nov 14 17:13:32 2021 -0500

    image

commit b4671020bb6a69aeee0ed015aa29da50c2362661
Author: alejandrokatz <n01362083@unf.edu>
Date: Sun Nov 14 16:28:35 2021 -0500

    Tests

commit c7769d4eaa9a1d63069a1b50edba051c99aa8470
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Nov 14 15:23:33 2021 -0500

    a bunch of stuff
    Fixed Computer moves, removed AI class (put methods in player), updated
    board every second

commit c89d1b4e1a30bdff32ce2ab454d08b5a2bb65c21
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Nov 14 14:09:37 2021 -0500

    updated player class

commit 0ba1f5449315c80888005773331fab9437c58d75
Merge: 7a87266 bc0a241
Author: marat <marat@ubuntu>
Date: Sat Nov 13 16:52:02 2021 -0500

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit bc0a241635baf1ddb9b9eb674093677bd7ffba4a
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sat Nov 13 16:51:51 2021 -0500

    Removed dead code

commit 7a872661fef99b7efe5747f2373c6e716ce132c1
Author: marat <marat@ubuntu>
Date: Sat Nov 13 16:51:47 2021 -0500

    assign player through combobox and update board with ai move

commit f2babf09787020e0c65d133f4568a6f18564c8b8
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sat Nov 13 16:38:10 2021 -0500

    Changed timer to 60 due to longer games being played now

commit 878174743d694a769572fbdf5d37a3dcd7f6d232
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sat Nov 13 16:31:25 2021 -0500

    Board class comments and clean up

commit ce572497c4a08f87d8c2e56501622901a8fe3e5e
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sat Nov 13 16:20:06 2021 -0500

Board class working as intended now

commit ccaf7ef80cf4d7ad43fbe46b118b9fe96a0f9b4d
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sat Nov 13 15:55:47 2021 -0500

        Modified diagonals logic and its working now

commit 016a75026b5d872ff856fa7097819c514e8c9d54
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sat Nov 13 13:08:19 2021 -0500

        Finished AItest.java

commit 49713189c541c2ac25811690300eb63615c9bdb0
Author: alejandrokatz <n01362083@unf.edu>
Date: Sat Nov 13 12:41:26 2021 -0500

        added AI test cases

commit 5dc6e741f875b668587c4b3b530ea90845f3543d
Author: Thecodebilly <N01401127@unf.edu>
Date: Sat Nov 13 12:17:37 2021 -0500

        commented out AI call

commit 8cf86357849aa292e4ffeeb880761e5a0853e429
Author: Thecodebilly <N01401127@unf.edu>
Date: Sat Nov 13 11:39:04 2021 -0500

        calling AI functions without objects instantiated

commit 897989d9d165209cd4b39e15cc44190477522a8a
Author: Thecodebilly <N01401127@unf.edu>
Date: Sat Nov 13 11:29:25 2021 -0500

        fixes to board

commit 0675893d19c9cd5f664644a9d4823e3b22e6acbc
Author: alejandrokatz <n01362083@unf.edu>
Date: Thu Nov 11 23:21:07 2021 -0500

        Properly set k field. default k to smallest of mxn if bigger than either

commit b5878903906bf505757dddf9b0f382a21fd03076
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 14:08:38 2021 -0500

        Added comments

commit a8c8cd8a0fd056bf1bacd87312eb68446997a9c9
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 13:44:34 2021 -0500

        Removed old code

commit 0c90a982c7c8a7056dc7246456994a66deef7326
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 11:55:06 2021 -0500

        Updated board class with diagonal win conditions

commit 7a92ff0600b9489f8de5c25269fcba38028863d1
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 11:28:41 2021 -0500

Added loop for checking diagonal up and to the right

commit 1ab42148faca9f15068bfe4243a7bc83080b48a7
Merge: fb1453f 4da022d
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 10:27:05 2021 -0500

        Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit fb1453fd08fbfe593138de5418cae00e0182fec4
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Thu Nov 11 10:26:45 2021 -0500

        Board for PA3 in progress

commit 4da022da154b3f4e7627421b1b3a6252216f22a8
Author: alejandrokatz <n01362083@unf.edu>
Date: Wed Nov 10 17:36:03 2021 -0500

        Made the initial popup slightly less scuffed

commit 42683056dc873855cafd5aa66cf3dbc99b80cfd4
Author: alejandrokatz <n01362083@unf.edu>
Date: Wed Nov 10 17:22:55 2021 -0500

        typo

commit 6494df980cdd85264a68c852ac11624d225c5d11
Author: alejandrokatz <n01362083@unf.edu>
Date: Wed Nov 10 17:20:22 2021 -0500

        Added dimmension popup. Needs improvement

commit 9542ee757762ce4cbe30cbb2da5623c5f3b663da
Author: alejandrokatz <n01362083@unf.edu>
Date: Wed Nov 10 16:06:16 2021 -0500

        Reduced compilation problems, removed Board object for static class

commit 29b34f05f69d44c799e9d381c5dcb5566b0d73e6
Author: alejandrokatz <n01362083@unf.edu>
Date: Wed Nov 10 15:47:40 2021 -0500

        removed some non-static references to Board. Comments for new popup

commit 2af4641a681ebd5c061e381b553cac2d514c0751
Author: Thecodebilly <N01401127@unf.edu>
Date: Mon Nov 8 22:20:12 2021 -0500

        player update

commit ed96875a34ac05bbfc9a64683cd97f4b18a95edf
Author: alejandrokatz <n01362083@unf.edu>
Date: Mon Nov 8 19:54:07 2021 -0500

        added getMove to AI.java, recreated Player.java

commit f3ca58488f44d2439bc2eb7ec838a97b151faea2
Author: Thecodebilly <N01401127@unf.edu>
Date: Mon Nov 8 11:47:09 2021 -0500

        AI framework

commit 8786ee77ad423f34ac94715dba4e5b53d7ec6e08
Author: Billy Shaw <N01401127@unf.edu>
Date: Thu Nov 4 15:55:08 2021 -0400

added pseudo code and constructor for AI

commit 36e1959bd32f770bc316bef8b29aba4822465cc4
Author: Billy Shaw <N01401127@unf.edu>
Date: Thu Nov 4 15:27:02 2021 -0400

        added AI class

commit d702a4737abbd5eeacd83a56b8fd27da16dd9631
Author: nhsbi <nhsbi@DESKTOP-6JCP41M>
Date: Sat Oct 30 16:48:16 2021 -0400

        # WARNING: head commit changed in the meantime

        merge

commit 4117dccd9d7480d1a6bde257e728994e5e0b09d9 (origin/mainToBeMerged)
Author: alejandrokatz <n01362083@unf.edu>
Date: Mon Oct 25 15:28:24 2021 -0400

        imported pa2 code to recycle

commit 98573542d9dbaac8cffc04c35f759505bd48d6ec
Author: alejandrokatz <n01362083@unf.edu>
Date: Mon Oct 25 15:22:09 2021 -0400

        Initial Commit

commit dca268e934af8a14e437f9e0e04b6c0beb5c1102
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 20:10:21 2021 -0400

        pdf2

commit df2c29551db40386a8cf70dd66caf802f6bb0943
Merge: 1dbf62c c87deee
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 19:53:20 2021 -0400

        Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 1dbf62cf865124cfd887efa44ff6f282bda6714f
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 19:53:04 2021 -0400

        updated readme

commit c87deee59ea3213e2f4891f15d21fa140d63ecfe
Author: Alejandro K <79485148+AleAlejandrok@users.noreply.github.com>
Date: Sun Oct 24 19:52:41 2021 -0400

        Add files via upload

        added submission file

commit 57688c017096858dffa11d24d76ce8df046c67e2
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 17:13:20 2021 -0400

        Finally

commit d1b170acd2f0cc9fc0a7f18903a7c0af9b26b0c2
Merge: 79eb51f 50290e3
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 16:59:35 2021 -0400

Merge remote-tracking branch 'origin/main' into main

commit 79eb51f4809ed8ed8c25caf44d83514751f0f7ab
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 16:59:12 2021 -0400

    github arrrggg

commit 3e55e8c1bd0a2b770780a57670a9ad222290b09f
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 16:55:28 2021 -0400

    final settings changed

commit 50290e38286a9880c461e476ca4882d433a32959
Merge: 5a94d1f 36b934e
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 16:47:27 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 5a94d1ffff755ac78db082f4b16ee310e1b08ae4
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 16:47:15 2021 -0400

    Learned how to use arrays after 3.5 years in University

commit 36b934e9aaf8df695cd647333f6bee2f646ec2b8
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 16:44:42 2021 -0400

    uhhh

commit bc1d3664f39e0016dcde2f3f9fbbb2bd5ec50b46
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 16:33:43 2021 -0400

    Board drawing

commit 9eb8c431bbc77590dd80ada44dd95ece2bbddc52
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 16:30:59 2021 -0400

    testPlayerWind

commit 9ba539d30d1ec613b05e6929e25320368187c9c3
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Oct 24 16:29:31 2021 -0400

    Commented out functions that are not used.

commit b46b382c81a8532a4c6b37b49df54602c7645b9e
Author: NotMexican <alejandro.katz@outlook.com>
Date: Sun Oct 24 16:17:16 2021 -0400

    testSetBoard

commit 2872aa9955bb5dcfa2b22dc3b3f0767f310d24eb
Author: Jonathan Shih <jonnyshih@gmail.com>
Date: Sun Oct 24 01:14:54 2021 -0400

    Added 'else if' to conditional if win and draw occur simultaneously

commit a5cecdb14c4908e91108a4dc08399d73b01ae46d
Author: Jonathan Shih <jonnyshih@gmail.com>

```
Date:   Sat Oct 23 18:51:26 2021 -0400

    Fixed a typo

commit bf0a054db7a21cd1388ac724c1abc29a7c6bbc67
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sat Oct 23 18:34:54 2021 -0400

    Changed timer back to 50 seconds. Cleaned up board class

commit 7a3df03884e6e9f28a567ad2ee13909f13e71513
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sat Oct 23 14:33:57 2021 -0400

    Oops, forgot timeout functionality. NOW it is done.

commit 2729832db15c2d40ec8cc10c602e747bd56847f3
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sat Oct 23 14:10:50 2021 -0400

    Completed PA2... (for real this time)

commit 35962f235ca6cc2390a06e772499de5cfba60415
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sat Oct 23 13:54:19 2021 -0400

    Semi-final version

commit afbd939b3fb8e2b2afea5e494ba3ff9ec335876e
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sat Oct 23 13:36:17 2021 -0400

    Updated board

commit 49c1345ef939dc090cbe348a45213dea71c6000a
Merge: ea3bcfc 47e7d32
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sat Oct 23 13:34:40 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

    Conflicts:
            PA2/src/cen4010/pa2/Board.java

commit ea3bcfc22232672e5810948b2b150eee5eb0e160
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sat Oct 23 13:07:48 2021 -0400

    Updated diagonals in board class

commit 47e7d324af381dc0b2fb444b64201db62c0fd1a4
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sat Oct 23 13:03:14 2021 -0400

    finishing touches

commit 466d7e92c667d40b40c22d61daad0ed0d877176d
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sat Oct 23 12:09:20 2021 -0400

    fixed variable names

commit 53ce7a3561ee711247b1a4348563c40367e10979
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Fri Oct 22 17:27:28 2021 -0400
```

Updated Board.java

commit 697671cc8ad7781a952e8758e033d83d89f6d52f
Author: alejandrokatz <n01362083@unf.edu>
Date: Fri Oct 22 15:48:36 2021 -0400

        Removed mainTest.java, not needed. Added comments to board.java and
        todo.txt

commit 9825953b32b1f69acd1be3a618356a30474abc1d
Author: alejandrokatz <n01362083@unf.edu>
Date: Fri Oct 22 15:36:35 2021 -0400

        Removed COMMITTED. Added test stubs

commit 472fc9d527136ae961368b4c60ee00ddae084f2c
Author: marat <marat@DESKTOP-DCT3DBM>
Date: Fri Oct 22 00:52:24 2021 -0400

        Pop up window

commit e410369c3ef7b2407bd6c04aaefbf8a1f9bc306d
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 13:55:58 2021 -0400

        Game Started.

commit 38097059120a73ef461023170cecd6ab469ce44a
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 13:53:36 2021 -0400

        New and improved X's and O's

commit a95614a4e04e22f27ed035760ed2f7ac6c5e9d8a
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 13:40:57 2021 -0400

        No more overwriting!

commit 9b9f2c2aba59a87a5cace6db7337d179f049a41c
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 13:28:34 2021 -0400

        Timers added

commit acc2aca66c88ca6b3f3802f3639928e72277b0ae
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 11:53:28 2021 -0400

        Pushed before timer add

commit a7e6d657e99cfe040eec4cd95275f60517745eff
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 11:48:23 2021 -0400

        Border Layout Stuff

commit b61a484cc59c5757f91938ab44443123f1625c76
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 11:33:11 2021 -0400

        Incorporation of GUI_Rework branch which was done by Marat

commit b42dc83b9d72d88566ebc683ad68ad801aa2eb5c
Author: Thecodebilly <N01401127@unf.edu>
Date: Thu Oct 21 10:27:24 2021 -0400

```
    fixed board references

commit 91886a3ed026a7206323a0374284cf71efda59cf
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Wed Oct 20 17:25:45 2021 -0400

    Added comment to gameDraw()

commit 8aeaa46fba3ddb004f676cd6c446ccac62114a60
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Wed Oct 20 15:18:41 2021 -0400

    Updated board.java

commit a22c84f8eaff6ff2bf3c0fa934b22da004845910
Merge: d46c5a6 47548c0
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Wed Oct 20 15:17:19 2021 -0400

    # WARNING: head commit changed in the meantime

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit d46c5a6dcc2a783641eb0b017962b7e82dce2d40
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Wed Oct 20 14:43:01 2021 -0400

    Added first draft of playerWin and gameDraw functions to board.java

    # WARNING: head commit changed in the meantime

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit 47548c04121672b5cb6d67dcd412fb57110c3b07
Author: Thecodebilly <N01401127@unf.edu>
Date:   Wed Oct 20 14:03:59 2021 -0400

    Timer shtuff

commit 2c8b2eddfd74be1ae303b9511c1beb2eb6ba9da0
Author: Thecodebilly <N01401127@unf.edu>
Date:   Wed Oct 20 13:06:40 2021 -0400

    added timer jlabels

commit c71a0e7754ea9c761d54376a0b930b9580991bf0
Author: alejandrokatz <n01362083@unf.edu>
Date:   Tue Oct 19 21:35:56 2021 -0400

    added to todo

commit e60ec9a2f1567fc4de6b1676e04bd74ffe69b186
Author: marat <marat@DESKTOP-DCT3DBM>
Date:   Mon Oct 18 14:12:18 2021 -0400

    added BoardTODO and LogicTODO

commit 91b45dbce8cb3fbf3f803c7ee258d78b96d6126c
Author: marat <marat@DESKTOP-DCT3DBM>
Date:   Mon Oct 18 14:06:11 2021 -0400

    TODO list

commit bb074f723f019518249bafb2caa76283976ef450
Author: Thecodebilly <N01401127@unf.edu>
```

```
Date:   Wed Oct 13 11:19:54 2021 -0400

    added comments

commit da49911cd86f06891384bfeb7018a14c32982992
Author: nhsbi <nhsbi@DESKTOP-6JCP41M>
Date:   Tue Oct 12 13:19:33 2021 -0400

    Added mark adding, more formatting, and button listener.

commit 05d7d4eb795b435c3e90fb1241669c73febe15aa
Author: Thecodebilly <N01401127@unf.edu>
Date:   Tue Oct 12 00:02:22 2021 -0400

    needed more S P A C E.

    Added spacing and second panel for timer and other operations :-)

commit ace515d07061a95d817bfc7f0fd9e63b9d89be6c
Author: alejandrokatz <n01362083@unf.edu>
Date:   Mon Oct 11 16:43:40 2021 -0400

    added padding to tic tac toe

commit 9ce87acafc4e8675f7e742609899cef8fc53a287
Author: nhsbi <nhsbi@10.253.62.17>
Date:   Mon Oct 11 16:39:59 2021 -0400

    squares

commit 5dfc7376bbb5724183555a695a0b305d71ff0da0
Author: nhsbi <nhsbi@10.253.62.17>
Date:   Mon Oct 11 16:08:47 2021 -0400

    Boxes... in

commit c4dc4c3ba57fa2e1084db30d60497fb83c77b7c3
Merge: 83dffe8 9fed2c3
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Oct 10 18:51:36 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 83dffe837a2381253e61ea52e85143970959ff31
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Oct 10 18:50:42 2021 -0400

    GUI update

commit 9fed2c30e6fafa92dd2412ef240074411dde7bff
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:34:36 2021 -0400

    Commit message

commit 32251e2a9940c9c49176aa7f781bc23a6da0e1b4
Author: marat <marat@DESKTOP-DCT3DBM>
Date:   Sun Oct 10 18:31:10 2021 -0400

    Test comment

commit afdd7bd109b851bc7af086c226de1302fd3f3417
Merge: 12e4d07 ba45f44
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:25:15 2021 -0400
```

```
    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 12e4d07f0ac7582274ce0473450f4279f0564f8d
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:25:07 2021 -0400

    test cases

commit ba45f44448b69b13ee8c4dc3ec07d0a196494432
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Oct 10 18:24:29 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 3f5ea7cd1832c8ee343cf4af9f59a965d4e4e62c
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:21:40 2021 -0400

    added tests directory

commit 079d69ee29112dfa75fd73de7fa2835c1ab37828
Merge: cd1cde7 1d7a21f
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Oct 10 18:19:09 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit cd1cde723a8c2c8aa6aa539296c3367bcb6d8399
Author: Thecodebilly <N01401127@unf.edu>
Date:   Sun Oct 10 18:18:23 2021 -0400

    Board.java added

commit 1d7a21f53109423e17c1134a13c89f73da5bc3eb
Author: Jonathan Shih <71303353+EazyWei@users.noreply.github.com>
Date:   Sun Oct 10 18:17:53 2021 -0400

    Update Readme.txt

commit 2ae33afbb43d25e52394757e6204c38e30b6d1c6
Merge: 53897da 9a84b13
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:14:00 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit 53897da0174ee4e17ba582d4a9dcb5aa2a90f27c
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:13:42 2021 -0400

    stuff

commit 9a84b1339f111dd4b0b542ea0adf85ee4bf67ebd
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sun Oct 10 18:11:20 2021 -0400

    Added Readme

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit a54d572f57807b27adc0c8edf689f75ab6a917e4
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 10 18:05:02 2021 -0400

    PA2
```

```
commit 5bc7ab5e7fdbdb99c4cc0cd873fc653f13aeb45a
Merge: f4c4ee3 5a3c187
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sun Oct 3 13:22:23 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4 into main

commit f4c4ee3552cfc2e74524147d23c1505aac8050f2
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sun Oct 3 13:20:08 2021 -0400

    Overview done

commit 5a3c18710007ca014ac950f2fe188f20f0193d1d
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 3 13:00:11 2021 -0400

    modified tests to more closely resemble rubric

commit cab970440d6405efa244a1072f6b3c676faf8085
Merge: 297b44b e7cd2db
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 3 12:53:11 2021 -0400

    Merge branch 'main' of https://github.com/UNF-CEN4010/T4.git into main

commit e7cd2db9e27e473dcda481c8a987f5fda8ebbb55
Author: Alejandro K <79485148+AleAlejandrok@users.noreply.github.com>
Date:   Sun Oct 3 12:52:59 2021 -0400

    Update Vector3D.java

commit 297b44b525fcf50e55e2abe944dcb0a477a1913a
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 3 12:52:14 2021 -0400

    removed comments code

commit 860c324c43bfa6d7508e5136dddf06469a81553c
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 3 12:51:05 2021 -0400

    removed bill's comment

commit d51cd04a071de1927b834a31cf36379f303ab27b
Author: Jonathan Shih <jonnyshih@gmail.com>
Date:   Sun Oct 3 12:50:55 2021 -0400

    Put in names

commit c353ff62f04015cf14741cbc244edd0b53066e25
Author: alejandrokatz <n01362083@unf.edu>
Date:   Sun Oct 3 12:31:39 2021 -0400

    Moved things to be in line with package directory reqs, finished 3Dtests

commit 0bb153afa79187a645b5180016ebe67cd0aa5327
Merge: 1ead005 2b91318
Author: Alejandro K <79485148+AleAlejandrok@users.noreply.github.com>
Date:   Thu Sep 30 17:21:35 2021 -0400

    Merge pull request #3 from UNF-CEN4010/AlejandroTestAttempt

    Alejandro added testing capabilities and checking fixing structure of project to match prompt

commit 2b9131888ad17b5e67cdb649f5bbe0ece47654a4 (origin/AlejandroTestAttempt)
```

Author: alejandrokatz <alejandrokatz@hackbookpro.attlocal.net>
Date: Thu Sep 30 17:14:52 2021 -0400

    Added basic implementations of all tests. Add, dot, Subtract, and string
    tests don't work

commit e0d0fbb1e842bd109ad640dbf031a845919e0806
Author: alejandrokatz <alejandrokatz@hackbookpro.attlocal.net>
Date: Thu Sep 30 17:08:16 2021 -0400

    Restructured to match prompt. Added a few tests

commit 1ead0057f17ff76c79dfc4a886bbe93d2e0d21a0
Author: alejandrokatz <alejandrokatz@hackbookpro.attlocal.net>
Date: Thu Sep 30 16:40:44 2021 -0400

    RM NegateTest
    Added Vector3DTest with stubs

commit ba1793c5d9e9fb3c62b96c8f1959d9b9f9591c30
Author: Thecodebilly <N01401127@unf.edu>
Date: Sun Sep 26 09:51:35 2021 -0400

    Added single test case for negate

    could be used as a template for the other tests

commit 1e8f25c6ee181d50cd8d08f60bddfeb1114ace84
Merge: 659eb97 20a16e5
Author: Thecodebilly <64550116+Thecodebilly@users.noreply.github.com>
Date: Thu Sep 16 12:18:52 2021 -0400

    Merge pull request #1 from UNF-CEN4010/master

    all the classes implemented, just need tests

commit 20a16e54fb43b9f89dc56dd7a8df1cfc14ebd402 (origin/master)
Author: Billy Shaw <N01401127@unf.edu>
Date: Thu Sep 16 12:13:03 2021 -0400

    all the classes implemented, just need tests

commit 659eb970efc3e5d2ce3788b61d4908add39fdd4b
Author: Thecodebilly <64550116+Thecodebilly@users.noreply.github.com>
Date: Thu Sep 16 10:12:35 2021 -0400

    Update Members

commit 2e5ada48bc1f123f5d32e2c54dd006f009c5ae21
Author: JeanPaulMarat95 <79609412+JeanPaulMarat95@users.noreply.github.com>
Date: Tue Sep 14 14:42:51 2021 -0400

    Update Members

commit 29de01101afcd72329dc555e10afa7aef1ccf7d3
Author: Jonathan Shih <71303353+EazyWei@users.noreply.github.com>
Date: Tue Sep 14 13:57:42 2021 -0400

    Create Members
(END)