University of North Florida

Group 4's Tic-Tac-Toe

Version 1

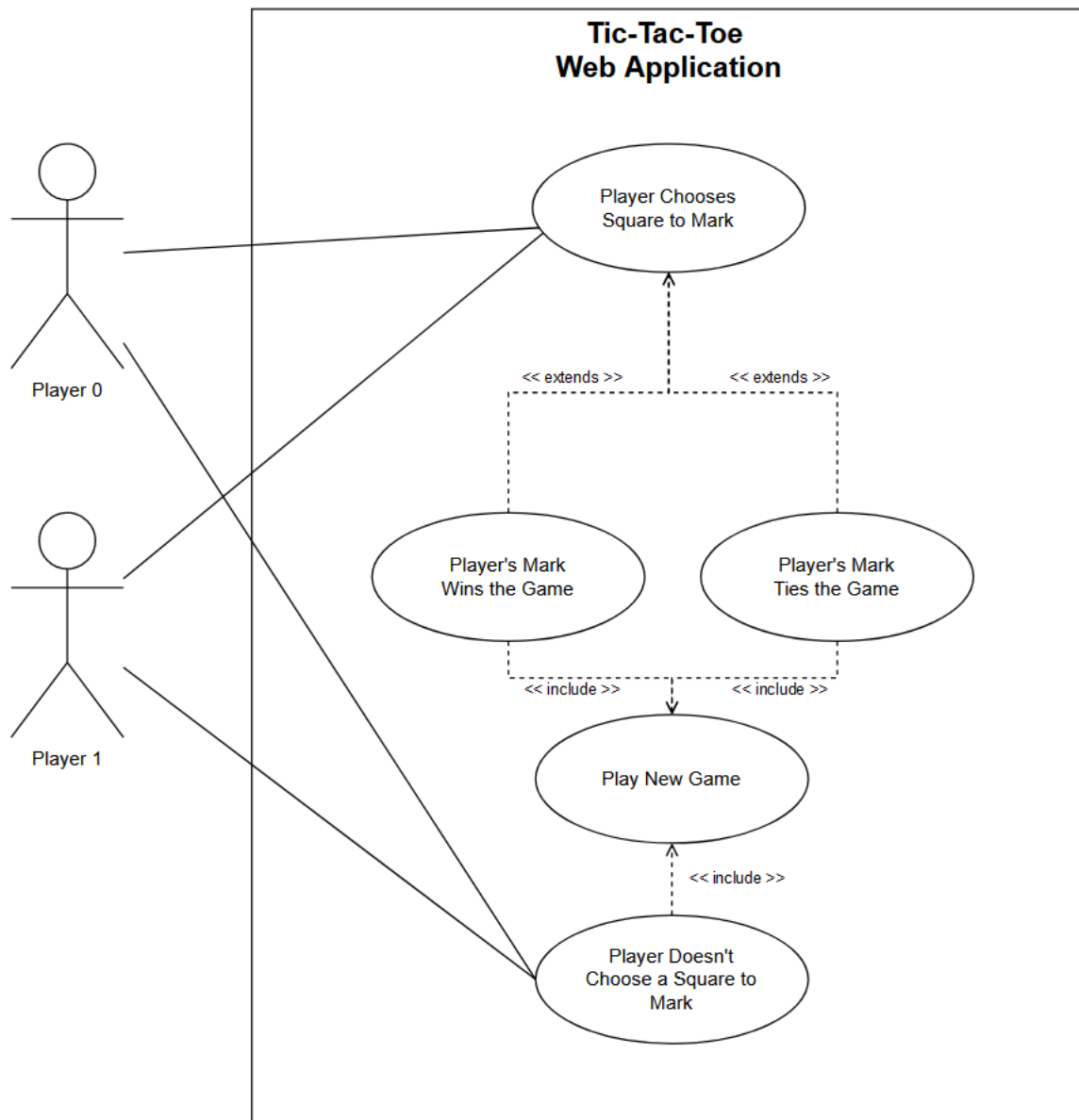*Alex McTammany*

Joel Papineau

Cody Thurber

Vincent Zire Almeda

**Tic-Tac-Toe
Web Application**

Player 0

Player 1

Player Chooses
Square to Mark

<< extends >>   << extends >>

Player's Mark
Wins the Game

Player's Mark
Ties the Game

<< include >>   << include >>

Play New Game

<< include >>

Player Doesn't
Choose a Square to
Mark

USE CASE: Player Chooses Square to Mark

ACTORS: Player 1, Player 2

GOALS: To fill a square with either an 'X' or an 'O', depending on which actor (player number) clicks

PRECONDITIONS: Game started (which occurs when webpage is opened)

STEPS:

1. Player selects a square to mark	2.
	    a. Square is empty - square fills with player's respective mark ('X' / 'O')
	    b. Square is full - nothing occurs (return to step one)
	3. Remove highlight from current player's name and highlight opposing player's name

4. Return to step 1 for the opposing player	

USE CASE: Player Chooses Square to Mark and Wins the Game (3-in-a-row)

ACTORS: Player 1, Player 2

GOALS: Congratulate the winner of the game and increase their score by 1

RELATED USE CASES: *Extension of:* Player Chooses Square to Mark … *Includes:* Play New Game

PRECONDITIONS: Player has two marks (of theirs) in a row, either diagonally, horizontally, or vertically

STEPS:

1. Player selects a square to mark that is the third in a (horizontal, vertical, diagonal) row	2. Dialog box appears and...
	    a. congratulates player for winning the game
	    b. asks if players would like to play another game
	3. The winning player's display score goes up by 1

USE CASE: Player Chooses Square to Mark and Ties the Game

ACTORS: Player 1, Player 2

GOALS: Alert the players to a tie and ask if they would like to play again

RELATED USE CASES: *Extension of:* Player Chooses Square to Mark … *Includes:* Play New Game

PRECONDITIONS: All boxes minus one (n-1; n=9 currently) are ticked

STEPS:

1. Player selects the final square to mark that doesn't result in 3-in-a-row	2. Dialog box appears and…
	   a. states there was a tie
	   b. asks if players would like to play again

USE CASE: Play New Game

ACTORS: Player 1, Player 2

GOALS: Prepare the game board for a new round

RELATED USE CASES: *Included by:* Player Chooses Square to Mark and Ties the Game,
Player Chooses Square to Mark and Wins the Game,
Player Doesn't Choose a Square to Mark

PRECONDITIONS: Game either ended in a win, tie, or exceeded timer length

STEPS:

1. User selects 'Play New Game' from dialog box	2. Dialog box disappears 3. Game board clears (all squares are emptied) 4. Timer resets to 30 seconds and displays in time box (in GUI) 5. Player 0's name is highlighted

USE CASE: Player Doesn't Choose a Square to Mark

ACTORS: Player 1, Player 2

GOALS: End the game due to the preset timer running out and ask if they would like to play again
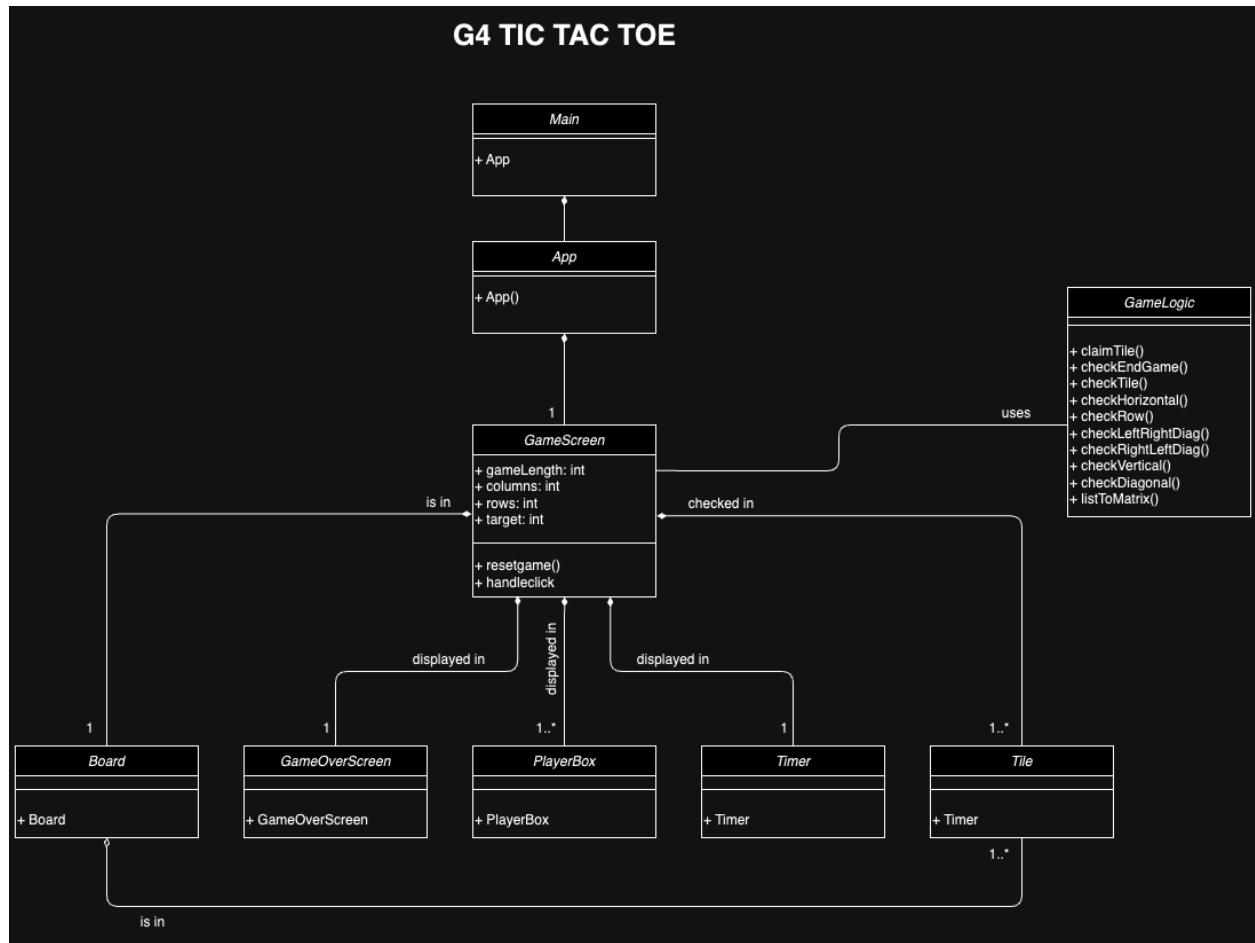
RELATED USE CASES: *Includes:* Play New Game

PRECONDITIONS: None

STEPS:

1. Player doesn't choose a square to mark within allotted time	2. Dialog appears and...
	    a. states time ran out
	    b. asks if players would like to play again

UML CLASS DIAGRAM

G4 TIC TAC TOE

Main

+ App

App

+ App()

GameScreen

+ gameLength: int
+ columns: int
+ rows: int
+ target: int

+ resetgame()
+ handleclick

GameLogic

+ claimTile()
+ checkEndGame()
+ checkTile()
+ checkHorizontal()
+ checkRow()
+ checkLeftRightDiag()
+ checkRightLeftDiag()
+ checkVertical()
+ checkDiagonal()
+ listToMatrix()

uses

is in

checked in

1

Board

+ Board

GameOverScreen

+ GameOverScreen

PlayerBox

+ PlayerBox

Timer

+ Timer

Tile

+ Timer

displayed in

displayed in

displayed in

is in

1

1

1..*

1

1..*

1..*

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Sun Oct 22 20:42:01 2023 -0400

    upd use case list/diagram, names on front page

commit b62f421584a17b646ad72503cf6ef87fba1de22d

Author: buknoynoynoy <vzire08@gmail.com>

Date: Sun Oct 22 20:13:28 2023 -0400

    UPDATED Submission Packet

commit c190f7b31a6dff41c04b499cdd150b7d0e9e7c90

Author: buknoynoynoy <vzire08@gmail.com>

Date: Sun Oct 22 20:08:05 2023 -0400

    fixed uml class diag

commit 1fdd47e0662b8c128a94114ae6744321e60cf1cd

Author: buknoynoynoy <vzire08@gmail.com>

Date: Sun Oct 22 19:59:06 2023 -0400

    added uml class diagram

commit 7ec3bb047ce97070dd4331fd0128c04a8fb605ce

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Sun Oct 22 18:56:39 2023 -0400

Update README (format).md

commit 40816eb87dee82776546a328724c5be7260b72ec

Author: Joel Papineau <118376438+j-papineau@users.noreply.github.com>

Date: Sun Oct 22 18:08:58 2023 -0400

Update README.md

note added about unit testing

commit b2700ef8398ff76724aeee5580793892748348d4

Author: Joel Papineau <118376438+j-papineau@users.noreply.github.com>

Date: Sun Oct 22 18:03:42 2023 -0400

Update README.md

commit 90d6746de8f41d3a057b3142525cb3df90b39d37

Merge: 1105ff7 e7d0d3e

Author: Joel Papineau <118376438+j-papineau@users.noreply.github.com>

Date: Sun Oct 22 16:32:00 2023 -0400

Merge pull request #1 from UNF-CEN4010/Joel-Logic-Patch

Joel logic patch

commit e7d0d3e69ae8e7ef70f51b37d360df022c3b8e0f (origin/Joel-Logic-Patch,
origin/Cody_Style-ATT)

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Fri Oct 20 21:59:22 2023 -0400

updated ucd/ucl

commit 2fa735a0eaa27137bb3ad0eeb3fd21333bc25a51

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Fri Oct 20 19:34:10 2023 -0400

        UPDATED submission packet

commit aa24606e2140623c8d8f485e5ce3af3f8e054543

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Fri Oct 20 19:23:44 2023 -0400

        Update README with game info

commit e7da682a27c5c1e06938cab35308b7cae0951506

Author: Cody Thurber <83415278+TrustKibou@users.noreply.github.com>

Date: Fri Oct 20 18:50:17 2023 -0400

        use case list/diagram; prepped pdf deliverable

commit 6d8b65f27bfc1769e39d18292e112aba7a1f6353

Author: Joel Papineau <118376438+j-papineau@users.noreply.github.com>

Date: Fri Oct 20 01:23:08 2023 -0400

        game logic improvements

commit 1105ff71e06da138ab8cc65965f92e71956a37af

Author: Alex McTammany <apmctammany@gmail.com>

Date: Tue Oct 17 23:31:11 2023 -0400

    added timer

commit d909ba62764041dfc53a5dc519660ce0dfba4a1a

Author: Alex McTammany <apmctammany@gmail.com>

Date: Tue Oct 17 13:55:17 2023 -0400

    added tie conditions

commit 2e17e1f7c4ee805491838a309d5f5db9d0110573

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 19:23:04 2023 -0400

    added scoring for each game

commit f3753aa597ce6fe0b63e4d6ad94554ba4286d89c

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 17:55:53 2023 -0400

    correctly formatted readme

commit e82ab7ca29897e9748358b9c35ee33a24b50b5e9

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 17:53:47 2023 -0400

    formatted readme

commit ab74a7dc04688cdc55a95f7270d5ca92e29df478

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 17:52:21 2023 -0400

    added installation instructions to readme.

commit 5aef3763de15ff9e8067d4a5427edf77540592aa

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 13:39:18 2023 -0400

    added vitest

commit a3056443f5383401f399bee35208df3db8c820be

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 13:33:03 2023 -0400

    added reset game functionality

commit 47f0af4b1a86cd0693c7bfd82aeaa13045c0b9b1

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 12:33:06 2023 -0400

    added game over code and screen to display it. need to have back button
reset everything (and eventually record player score)

commit 4ebadd00859da9b138923481ba9a7243df43c17b

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 12:02:05 2023 -0400

added tailwindcss + postcss processor

commit b2f373fa5b38c99043504b528a504209aedd86d3

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 10:41:14 2023 -0400

    added GameOverScreen (skeleton) and PlayerBox for showing the current
turn and eventually the players score

commit 9cf4a9a78de00cbcc23dca1f48492433c60fca03

Author: Alex McTammany <apmctammany@gmail.com>

Date: Thu Sep 28 10:11:12 2023 -0400

    initial commit. proof of concept. gameboard with interactive tiles. no
victory or endgame logic.

(END)