



GAME DESIGN DOCUMENT (GDD)

Team Name: Group 2

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Revision History:

Date	Version	Description	Author
2/18/2022	1.0	Document initialization	Group 2
3/18/2022	2.0	Allocating responsibilities	Maria Ali
3/23/2022	3.0	Began writing C# scripts	Ahmed Mazloun
3/24/2022	4.0	Continuing C#	Mohammed Mukahhal
3/29/2022	5.0	Continuing C# and uploading scripts on Unity with scenes and assets	Zan Peracha
4/3/2022	6.0	Creating restart button and winning/draw objects	Mustafa Ayyad
4/6/2022	7.0	Taking care of aspect ratio and placement of game objects on main camera	Maria Ali
4/17/2022	8.0	Testing game on devices	Group 2
4/18/2022	9.0	Debugging	Group 2
4/20/2022	10.0	Finalizing game design	Group 2

Game Name: Tic Tac Toe

Genre: Puzzle, Multi-Player

Game Elements: Player one, Player two, X wins, O wins, draw

Player: Restrict players to two players, but only one at a time

Game Play:

Player one will start with X, and player two will be O. Player one makes the first move, placing their letter of choice in one of the nine places in the grid, player two makes the next move, but can only put a letter in the 8 available slots. The players take turns until either someone has 3 of the same letter in a row vertically, horizontally, or diagonally. If the players make it to the end of the game with no one having 3 in a row, it is a draw. The game ends with either a win for player one, a win for player two, or a tie.

Game Play Outline:

- Opening the game application
- Game options
 - “Play button”
 - Possible future game mode options (single player)
- Story synopsis
 - Player chooses a open slot to place current team value in (X or O)
- Modes
 - Single player mode
 - Possibility of a second game mode which includes two players
- Game elements
 - Open interactive slots to place team value in (X or O)
 - Hover cruiser mouse to select a slot
- Game levels
 - No difficulty levels as it is a multi-player
- Player’s controls
 - Mouse cruiser to choose an open slot
- Winning
 - Either player gets three X’s or O’s in a row either horizontally, vertically, or diagonally.
- Losing
 - If a player gets three in a row of their letter horizontally, vertically, or diagonally, the other player loses.
- End
 - A game result screen announcing who the winner is, or a draw. Then the option to play again.
- Why is all this fun?
 - It encourages the players to create strategies, and simulations.

Key Features:

- Interactive UI
- Easy to understand and navigate
- Main multi player mode
- Ability to openly choose a slot
- Ability to see a final result screen after each game
 - You win message will be displayed if player won
 - A draw message will be displayed if no player won

Mechanics/GameObjects:

- Game board: Not controlled by the user. This is the base board where the game is played on, the other GameObjects interact here.
- X: One of the two letter options for the game. Player one can place the letter on any empty slots on the game board.
- O: One of the two letter options for the game. Player two can place the letter on any empty slots on the game board.
- Play Again option: option to play again
- “Player” Wins screen: announces which player won
- “Draw” screen: announces that a draw occurred

Game Design Definitions:

- In standard tic-tac-toe, player one (X) and player two (O) are each trying to make 3 in a row. If both play optimally, the game ends in a draw.
- The game is played on a grid that's 3 squares by 3 squares.
- You are X, your friend is O. Players take turns putting their marks in empty squares.
- The first player to get 3 of their marks in a row (up, down, across, or diagonally) is the winner.
- When all 9 squares are full, the game is over. If no player has 3 marks in a row, the game ends in a tie.

Responsibilities:

- Setting up the project
 - Zan and Mustafa
- Creating the User Interface
 - Ahmed and Mohammed
- Creating the Assets/Objects
 - Zan and Mustafa
- Building the Game Scene/Correcting view and aspect ratio
 - Maria
- Writing the code for various actions/methods/procedures and utilizing on unity
 - The entire team collaborated on the code
- Outlining and implementing the game rules
 - The entire team collaborated on outlining the game rules
- Testing game and finalizing
 - The entire team tested to ensure fluidity