

Tic Tac Toe

How to Play

Objective

Be the first to get three of your symbols (X or O) in a row—horizontally, vertically, or diagonally. The game ends in a draw if the board is full without a winner.

Getting Started

- Start: Launch the app to see the game board.
- Controls:
 - Click on an empty cell to make a move.
 - Use the "End Game" button to stop and view final scores.
 - Click "Quit" to exit the application.

Gameplay

- Making a Move: Click a cell to place your symbol. The game alternates turn.
- Winning: If a player gets three in a row, they win. If the board is full without a winner, it's a draw.
- New Game: The board resets automatically after a game ends.
- Ending Game: Click "End Game" to stop and view scores. Click "Quit" to exit.

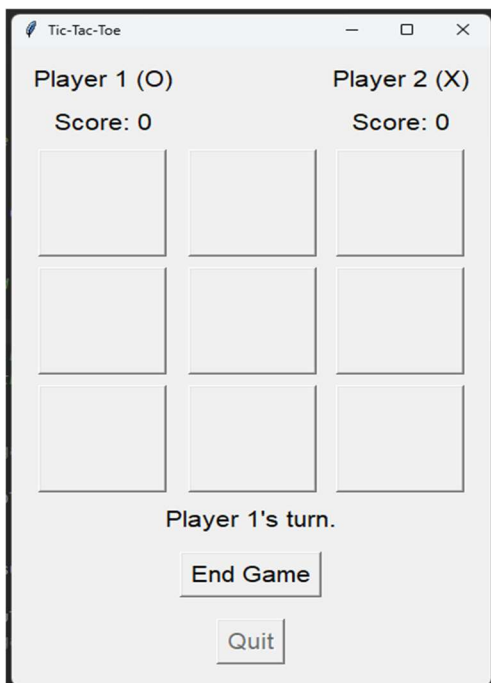
Enjoy playing Tic-Tac-Toe!

Tic Tac Toe Demo Link:

<https://drive.google.com/file/d/12jT5QIZJ4kRTYZHGqxuHIFHu0oB1Z59N/view?usp=sharing>

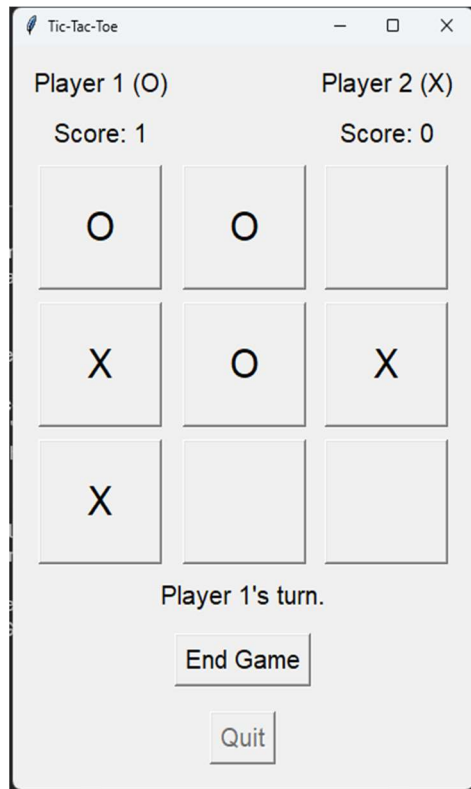
Screenshots

1. Initial Game Screen



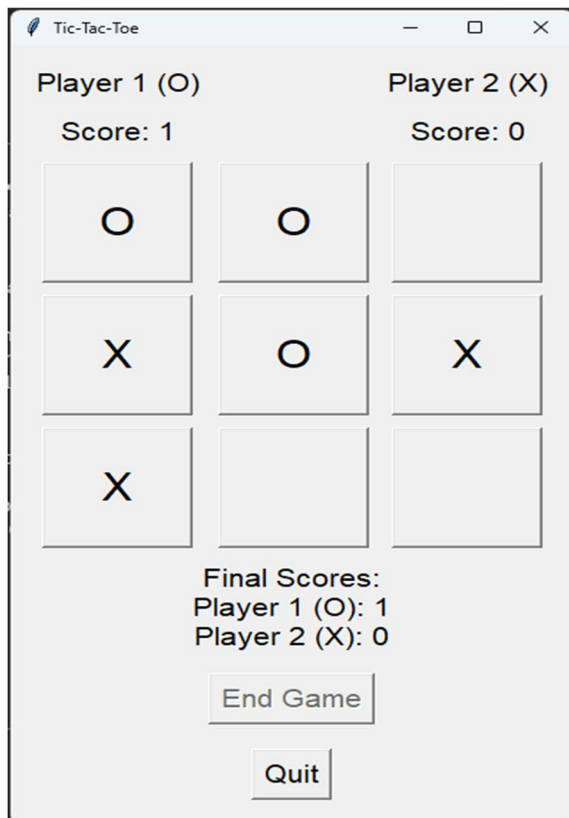
- Description: Displays the game board with Player 1 and Player 2 labels, score labels, and buttons.

2. Game in Progress



- Description: Shows the board with player moves and turn information.

3. Game Ended



- Description: Displays final scores and the game result message.

Key Functions

Board Class:

1. `make_move(row, col, player)`
Places a player's move on the board.
2. `check_winner()`
Checks for a winning condition.
3. `is_full()`
Checks if the board is full.

Game Class:

1. `make_move(row, col)`
Processes moves, updates the board, and checks for winners.
2. `start_new_game()`
Resets the game state and initializes settings.
3. `get_board()`
Returns the current board state.
4. `get_scores()`
Retrieves the current scores.

TicTacToeGUI Class:

1. `button_click(row, col)`
Handles user input and updates the game state.
2. `update_board()`
Updates the GUI to reflect the board state.
3. `start_game()`
Initializes and starts a new game session.
4. `end_game()`
Ends the game and displays final scores.