

Description:

This program is a simple graphical Tic-Tac-Toe game built using Pygame, where a user can play against an AI. Here's a breakdown of its main components:

Overview:

Pygame Initialization: The program starts by initializing Pygame and setting up the game window.

Game Colors: It defines colors for use in the game interface, particularly black and white.

User Interface:

Title and Buttons: The game presents a title ("Play Tic-Tac-Toe") and two buttons for the user to select their character: 'X' or 'O'.

Game Board: Once a player is chosen, the game board (a 3x3 grid) is displayed.

Game Logic:

Game State Management: The program manages the state of the game using functions from a separate tictactoe module, which handles the game logic, including checking for wins, ties, and managing player turns.

User and AI Turns: The user can make moves by clicking on the board. If it's the AI's turn, it uses the minimax algorithm to decide on its move.

Game End Handling:

When the game ends (win/tie), a "Play Again" button is displayed, allowing users to restart the game.

Event Handling:

The program listens for user input (mouse clicks) to navigate the game, update the state, and render changes to the display.

Fonts and Rendering:

The game uses different fonts for titles and move displays, enhancing the visual appeal and readability.

Game Loop:

The main loop continuously checks for events, updates the game state, and redraws the screen until the user closes the window.

Overall, this program provides an interactive experience for users to enjoy Tic-Tac-Toe against an AI opponent, with a clear user interface and straightforward game mechanics.

Output:

