

Tic Tac Toe Game Report

Overview

This report provides an overview of the Tic Tac Toe game implemented in Python. The game allows for two modes of play: Player vs Computer and Player vs Player. The game board and player moves are displayed with colored text to enhance the user experience.

Game Setup

The game initializes a list representing the game board with numbers from 0 to 9. The first element (index 0) is not used. The game board is displayed using a function that prints the current state of the board with colored marks for players 'X' (green) and 'O' (red).

Functions

1. CreateBoard():

- Prints the game board with the current state of each cell.
- Uses `get_colored(value)` to color the marks.

2. `get_colored(value)`:

- Returns the colored mark based on the player's symbol ('X' or 'O').

3. `comp_win()`:

- Checks if the computer can win in the next move and makes the winning move if possible.
- Returns 1 if a winning move is made, otherwise returns 0.

4. `block_user()`:

- Checks if the player is about to win in the next move and blocks the move if possible.

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- Returns 1 if a blocking move is made, otherwise returns 0.

5. checkWinner():

- Checks for a winner based on the current state of the board.
- Returns 1 if there is a winner, 0 if the game is a draw, and -1 if the game should continue.

6. markingBoard(choice, mark):

- Marks the board with the player's symbol if the chosen cell is available.
- Returns True if the move is valid, otherwise returns False.

Main Game Logic

The main game logic handles the game flow, including user input and computer moves. It alternates turns between the player and the computer (or between two players in Player vs Player mode). After each move, the game board is updated and displayed.

Player vs Computer Mode:

- The player and computer take turns to make moves.
- The computer uses a combination of random moves and strategic moves to win or block the player.
- The game checks for a winner after each move.

Player vs Player Mode:

- Two players take turns to make moves.
- The game checks for a winner after each move.

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Conclusion

The Tic Tac Toe game implemented in Python provides an interactive and visually appealing way to play the classic game. The use of colored text enhances the user experience, and the game logic ensures a fair and challenging game for both players and the computer.