

Report on the Tic Tac Toe Game in SDL (C Language)

Introduction

This report discusses the development of a Tic Tac Toe game using the SDL library in C. The game provides a graphical user interface (GUI) and offers two modes of play:

1. Player vs. Player
2. Player vs. Computer.

Objective

The primary objective of this project was to create an interactive and visually appealing Tic Tac Toe game that allows users to play either against another player or against the computer.

Overall Details

1. Tools and Technologies

- Programming Language: C
- Graphics Library: SDL2

2. Features

- Graphical User Interface (GUI):
 - A 3X3 board which is rendered using SDL.
 - Buttons for selecting game modes and restarting the game.
 - Game Modes:
 - Player vs. Player: Two players take turns placing X or O on the board.
 - Player vs. Computer: The computer plays strategically using a basic algorithm in the code.
 - Win/Tie Detection:
 - The game identifies winning patterns or ties after every move.
 - Restart Functionality: Players can reset the board and start a new game.
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- **Source Code**

The complete source code is modularized into the following sections:

1) main.cpp: Initializes SDL and contains the main logic of the code.

2) all_functions.c: Contains some functions necessary for the main.cpp to run the logic of the code.