

Project: Multiplayer Tic-Tac-Toe Game Using Socket Programming

A simple multiplayer Tic-Tac-Toe game implemented in Python using socket programming. The server facilitates the game between two clients, ensuring smooth communication and game management.

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Project Description

This project is a multiplayer Tic-Tac-Toe game where two players can connect to a central server, take turns making moves, and win, lose, or draw the game. The server manages the game logic, ensures synchronization between clients, and broadcasts messages.

Features

- Multiplayer gameplay between two clients.
- Real-time updates on both clients' screens.
- Automatic win, loss, or draw detection.
- Easy-to-understand command-line interface.

Technologies Used

- Programming Language: Python
- Socket Programming: Used for communication between the server and clients.
- Multithreading: Handles multiple client connections on the server.
- Operating System: Cross-platform compatibility.

How It Works

1. A server is started and listens for two client connections.

2. Two clients connect to the server.
3. The server alternates between players for turns.
4. Players make their moves, and the server updates the game board.
5. The game ends when a player wins or the board is full (draw).
6. The server broadcasts the game result to both players.

How to Run the Project

1.Start the Server: Open a terminal and run:

Command : `python server.py`

The server will start listening for two clients.

2.Start the Clients : Open two separate terminals and run the following command for each client:

Command : `python client.py`

Connect both clients to the server.