

Tic-Tac-Toe Multiplayer Game

This project is a multiplayer Tic-Tac-Toe game built with Node.js, Express, Socket.IO, MongoDB, and React. The game allows two players to join a room and play against each other in real-time.

Features

- Real-time gameplay with Socket.IO
- Persistent game state using MongoDB
- Two-player support with room-based game sessions

Prerequisites

- Node.js and npm installed
- MongoDB installed and running locally

Project Structure

```
tic-tac-toe_task_mentorship/
├── frontend/           # React frontend
│   ├── public/
│   ├── src/
│   ├── package.json
│   └── ...
├── server/            # Express server
│   ├── node_modules/
│   ├── package-lock.json
│   ├── server.js
│   └── package.json
└── README.md
```

Server-side

- connection: Handles new client connections.
- joinRoom: Joins a room and assigns the player (X or O).
- move: Handles a player's move and updates the game state.
- disconnect: Handles client disconnections.

Client-side

- joinRoom: Emits an event to join a specific room.
- loadGame: Loads the game state when joining a room.
- move: Emits an event to make a move and updates the game state.