

Tic-Tac-Toe game

We want to allow our potential new employees to show their knowledge. For that purpose, we will start with a basic multiplayer game → Tic-Tac-Toe.

The main task here is to create a JS (React + Node.JS, Postgres) application to support and dockerize the implementation (the DB must also be dockerized).

Use cases:

- login/logout (JWT authentication)
- create a new game (it can either be single-player or multiplayer)
- join an existing game (with the ID provided when the new game was created)
- make a new move
- A Tic-Tac-Toe board must be created, showing all the moves
- get live results via socket
- get a history for a game by ID

Technical requirements:

- TypeScript must be used
- some sort of CSS must be used (either plain CSS, Less, Sass, or some bootstrap MaterialUI, ReactBootstrap)
- Postgres as a DB
- Application (FE + BE + DB) should be dockerized
- Docker

Guidelines:

- for single-player, AI moves can be random (better implementation is a plus)

- extend the game if needed to cover any potential game-related problems
- UI/UX can be to your liking
- README.md file should be present in the root of the project, explaining:
 - how to run the project
 - architecture considerations
 - whatever is relevant for others to know or pay attention to
- the solution should be provided in your GitHub repository
- every change should be pushed through the PR

Suggestions:

- start implementing use cases from top to bottom
- use MUI (MaterialUI) because it is the most stable CSS framework, the most extensive base of the component, and the fastest to implement functional CSS as well

Additional:

- You can add GraphQL as a query language for API