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Tic-Tac-Toe

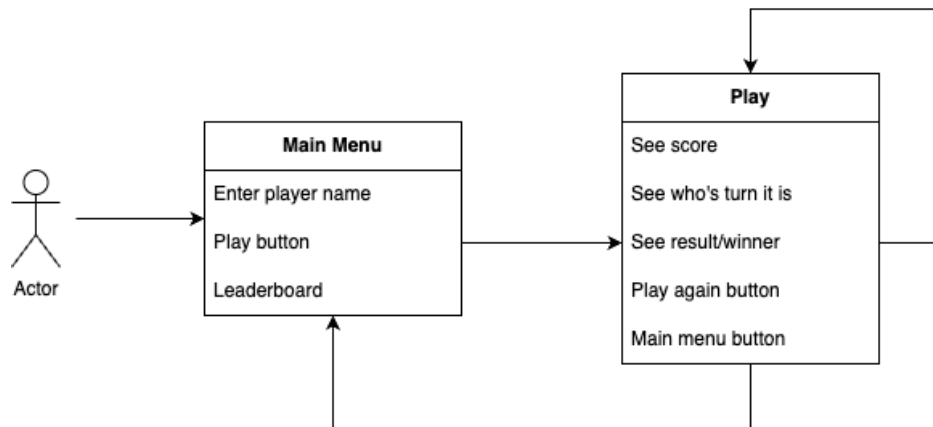
The goal of this project is to create a web-based version of the classic Tic-Tac-Toe game. Thus, the primary objective is to allow individuals play against each other in Tic-Tac-Toe online. The original plan was to allow two users to play against each other on two separate clients, but a reliable socket connection was not attainable in time. Although, the local version of this game came out very well.

Upon opening the web app, the users are greeted with a main menu page. This main menu contains a game title, text boxes to enter both player names, a play button, and a leaderboard of past top scoring players. After entering both player names and clicking the play button, the users are brought to the game screen. The game screen contains the interactive game board, a scoreboard between these two players' recent games, and a statement of who's turn it is currently. Here, players take turns clicking in the box that they want to place their X/O. If a player wins (by getting three of their symbols in a row), or there is a draw, the game ends, the winner is displayed, their score increases in the scoreboard, and the players have buttons to select whether they want to play again or go back to the main menu. At the main menu, the leaderboard automatically updates to display the current top-scoring players with their win counts.

The frontend of this project uses React, Vite, and Bootstrap. React is used to build the UI components. Vite is used for its instant local development server setup. Bootstrap is used for CSS styling, with a Bootswatch downloaded for quick and easy styling.

The backend of this project uses Node.js, Express.js, and MongoDB Atlas. Node.js is used as the JavaScript runtime environment. Express.js is used to create an HTTP server and define routes. MongoDB Atlas is used to create a database for players and their scores.

Architecture Wireframe:



Main Menu Wireframe:

Welcome to Tic-Tac-Toe

Player 1 Name:

Player 2 Name:

Play

Leaderboard Wireframe:

Leaderboard

Kyle - Wins: 9

Amir - Wins: 5

Kevin - Wins: 3

John - Wins: 3

Firas - Wins: 2

Jane - Wins: 2

Play Screen Wireframes:

Tic-Tac-Toe

Scoreboard

Kyle (X): 0 Amir (O): 0

X	X	
X		O
	O	O

Next Player: Kyle

Tic-Tac-Toe

Scoreboard

Kyle (X): 1 Amir (O): 0

X	X	X
X		O
	O	O

Winner: Kyle

Play Again

Main Menu