

Development Challenge Tic-Tac-Toe

Estimated Completion Time: 2-3 hours.

Problem:

Write a simple tic-tac-toe application using HTML5, CSS, and JavaScript that runs in the browser. The UI for the board should be a grid of 3 rows and 3 columns. Each space on the board is either blank, “X”, or “O”. The application should allow the user to tap a square to enter their move. “X” should start the game then “O” after which “X” and “O” alternate. After all spaces on the board are filled, the application should indicate “Game Over” and offer the user the chance to play again. The game should also have a button to restart the game before the game ends.

The application should focus on code quality and design. It does not need to include any logic for determining if there is a winner or tie—the user would do this. The application should not include a backend and not rely on any frameworks (e.g. React, Bootstrap, Angular, Vue, etc.).

Your submission should demonstrate the following:

- Ability to design and implement an appropriate Object Oriented solution.
- Expertise in writing clean, readable, maintainable, extensible, and easily debuggable code
- Knowledge of JavaScript (use of ES6 is encouraged)
- Proficiency in creating a responsive web design layout
- Bonus points if you can add automated unit tests in a standard test framework (e.g. Jasmine/Mocha) to demonstrate the correctness of your solution.

Be prepared to talk about your code during an on-site interview.