

## CINS 465: Assignment 2

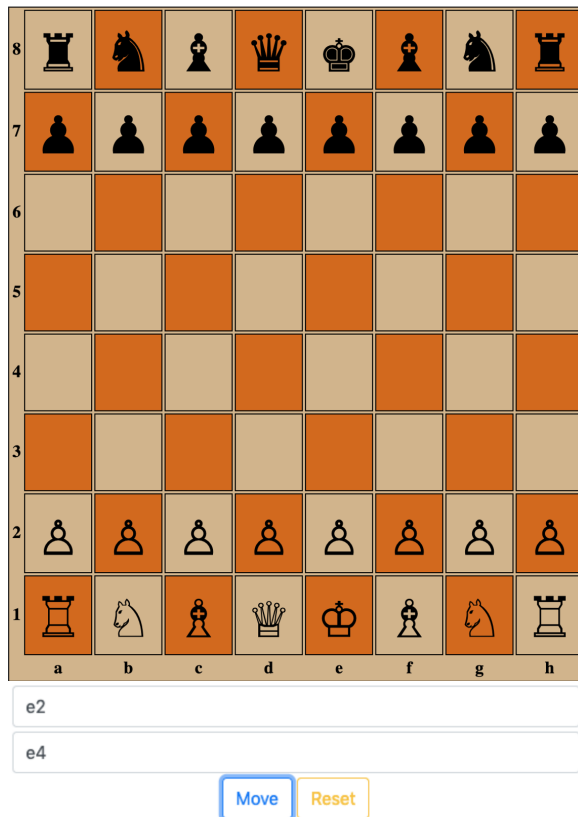
This is an individual assignment. **Do your own work. Do not copy / paste anything from any outside source (other than the bootstrap import tags within your <head> section).** You may brainstorm with others if needed. You may come to office hours or our scheduled problem solving sessions to get help if needed.

### Objectives

- Practice using basic HTML, CSS, Javascript & Bootstrap to create an **interactive** web page containing a chess board with **movable** pieces.

### Instructions

- Starting with your solution for Assignment 1 (a static web page containing a chessboard and other content):
  - Add a set of controls just below your static chessboard that allow chess piece movement using standard chess notation:



e2

e4

Move Reset

- Use the appropriate HTML tags with associated Bootstrap styles to render your movement controls below the board as shown above. You don't have to use the exact same button colors, but the layout of the input controls and buttons should be similar to that shown above. See the Lecture #6 notes and/or lecture video if you need a reminder on how to do use Bootstrap UI elements.
- By convention, chess moves are specified using the notation as shown above. For the starting position shown above, the move **e2 e4** means to advance the white pawn at square **e2** to square **e4**.
- Using a "placeholder" attribute on each **input** control, provide "hint" text as shown above ("e2" and "e4") for the expected input format.
- Associate the **Move** button as shown above with a javascript function that uses the DOM to perform the specified move. You may simply ignore the move (do nothing) if the source or destination squares are not formatted correctly.
- Associate the **Reset** button as shown above with a javascript function that resets the pieces to the starting position as shown above.

<continued on next page...>

## Steps

1. Start with your solution to Assignment 1. Change the page heading to say "Assignment 2..." with your name. Leave the content under the Chessboard as-is (Chess History, Rules, About).
2. If you haven't done so already, add **id** attributes to your `<td>` table elements, matching the standard chess notation for identifying each square on the board, "a1", "a2", etc. This will provide the needed linkage between your javascript logic and the chessboard HTML.
3. Include the standard Bootstrap CDN links within the **head** section of your html document. (See lecture 6 notes for details).
4. Add Bootstrap styled **input** and **button** controls similar to what is shown the image above. They don't have to match the provided image exactly, just make sure the controls are rendered below the chessboard, are styled with bootstrap, and are usable and functional.
5. Add **id** attributes to uniquely identify each of the **input** controls. Using **id="src"** for the first input control and **id="dst"** for the bottom input control will likely be convenient.
6. Create two javascript functions (in a **script** sub-section within the page's **head** section), one for moving the chess pieces attached to the **Move** button (via the **onclick** attribute), and one for resetting the board to the starting state attached to the **Reset** button (also via the **onclick** attribute).
7. Implement the javascript function for **Reset**. Hint: Use **window.location.reload()** to reload the page, which will reset all the pieces to their starting position.
8. Implement the javascript function connected to the **Move** button:
  - a. Use **document.getElementById("src").value**, to get what the user entered into the **src** edit control. Store this value in a variable named **src**.
  - b. Use **document.getElementById("dst").value**, to get what the user entered into the **dst** edit control. Store this value in a variable named **dst**.
  - c. Use **document.getElementById(src).innerHTML**, to get the chess piece at the source square. Store this value in a variable named **piece**.
  - d. Use **document.getElementById(dst).innerHTML** = to replace the content of the destination square with the **piece** you retrieved.
  - e. Use **document.getElementById(src).innerHTML** = to clear the contents of the source square (set to empty string).
9. Verify that the **Move** and **Reset** buttons are working as expected.