Othello Game in JavaScript
Due Date: Monday, March 11, 2019

Instructions

1. Download and install `node.js` from `nodejs.org`. You can <u>skip</u> this step if you plan to use EOS machines as Node.js is already installed on these machines.

2. Create a folder called "`Project3`" for this assignment.

3. Copy/download `Othello.js` and `Othello.test.js` files to this folder.

4. Change to Project3 folder. Run the following command which will create "`package.json`" file in this folder. <u>You need not do anything.</u>

   ```
   $ npm init -y
   ```

5. We need to install "`readline-sync`" package inside the Project3 folder. This package is required for the JavaScript program to read from the console. Issue the following command from inside the Project3 folder:

   ```
   $ npm install --save readline-sync
   ```

   After the above command runs successfully, you will notice "`package-lock.json`" file and "`node_modules`" folder. <u>You need not do anything</u>.

6. To run unit tests in the `Othello.test.js` file, we need to install the Jest (https://jestjs.io/en/) framework. Issue the following command from inside the Project3 folder:

   ```
   $ npm install --save-dev jest
   ```

   Successful completion of the above command will modify the contents of "`package-lock.json`" file and "`node_modules`" folder. <u>You need not do anything</u>.

7. Edit the file `package.json` file and change the scripts section in the file to look like the following:
   ```
   "scripts": {
       "test": "jest --coverage"
   }
   ```

8. Complete the assignment by coding the "TO DO" sections in `Othello.js` file. Also, add the following line after the definition of the `Othello` class:

   ```
   module.exports = Othello;
   ```

9. You can run `Othello.js` file using the following command:

    ```
    $ node Othello.js 4 1 W
    ```

10. If you want to run the unit tests in the `Othello.test.js` file to check your implementation, do the following:

    ▪ Temporarily comment the following line at the end of the `Othello.js` file: `main()`
    ▪ Run the unit tests with the following command:

    ```
    $ npm run test
    ```

11. <u>After all the unit tests pass, upload the finished `Othello.js` file on Blackboard by midnight on the due date.</u>

12. The submission time on Blackboard will be used as the official submission date/time.

13. Make sure your program runs on EOS machines before submitting it on Blackboard. I will test your program on EOS when grading.

14. **Late penalty (10% per day) applies after Monday, March 11th.**

Useful Resources for Learning JavaScript:

1. https://javascript.info/ (Part I)
2. https://developer.mozilla.org/en-US/docs/Web/JavaScript
3. https://www.w3schools.com/js/