HOUSECS 59.03: WEB DEVELOPMENT AND SOCIETY
Programming Assignment #4: JavaScript and jQuery

GUIDELINES:

Students are expected to adhere to the Duke Community Standard. If a student is responsible for academic dishonesty on a graded item in this course, then the student will have an opportunity to admit the infraction and, if approved by the Office of Student Conduct, resolve it directly through a faculty-student resolution agreement; the terms of that agreement would then dictate the consequences. If the student is found responsible through the Office of Student Conduct and the infraction is not resolved by a faculty-student resolution agreement, then **the student will receive a failing (unsatisfactory) grade for the final grade in the course**.

- Students may work on programming assignments with a maximum of one (1) other individual in the class. However, both individuals should contribute *equally* to the assignment and understand *all* parts of the code written.
- Students are expected to write their adherence to the Duke Community Standard in a README for every assignment. Students are allowed to consult others outside of their group—limited to Duke students and faculty—about the assignment only in a general way, but not actually provide/receive code to/from other students. If assistance is received from other individuals (excluding the instructors), it should be cited in the README. **Students should be prepared to explain any program code they submit.**
- It is acceptable to use *small* pieces of outside code (found on the Internet or otherwise) due to the nature of this course—but not entire methods or programs. Using open source libraries and packages is allowed. If you are concerned whether using a piece of code is within the Duke Community Standard, please ask. *All code used should be properly cited.*
- **All submissions are subject to automated plagiarism detection.** Assignments will be randomly checked using the MOSS Plagiarism Detector.

Please reaffirm your commitment to the Duke Community Standard by signing below. This page should be turned in the day the assignment is due.

Signature: _____

This assignment will be due on **Wednesday, November 29** and should be completed before the start of class. The policy for turning in late assignments is detailed in the syllabus. In order to receive a passing (satisfactory) grade, in addition to satisfying the attendance requirement, students must complete **all** assignments of this course with a total average of 70% or greater.

INSTRUCTIONS:

This assignment will assess your understanding of JavaScript events as well as jQuery basics. As part of this assignment, you will create one or more webpages on GitHub Pages that can be accessed at `http://[username].github.io/project4/`. You should use Git to track your changes, and your commit messages should be thoughtful and meaningful. The last commit timestamp will be used to determine the submission time of the assignment.

If you are part of a team, the webpages only need to be accessible via one team member's username, but both members should make an approximately equal number of commits to the

project. Both members will earn the same score on the assignment unless the distribution of work is not equal. The assignment will be graded according to the rubric (100 points) below.

RUBRIC:

Proper usage of version control systems (15 points)

- [5 points] README with adherence to Duke Community Standard
- [5 points] webpages accessible at `http://[username].github.io/project4/`
- [5 points] thoughtful and meaningful commit messages

Strong understanding of basic JavaScript events and jQuery (85 points)

- [20 points] completion of basic task visualization
- [20 points] completion of task `save` functionality
- [20 points] completion of task `load` functionality
- [5 points] completion of task `save + load` functionality
- [20 points] completion of task `clear` functionality

TASKS:

Write a series of functions that accomplishes the tasks below. Partial credit *will* be awarded for incomplete or incorrect functions.

Create a basic shopping list or to-do list application. The user will be presented with a textbox and buttons that read `save`, `load`, `save + load`, and `clear`. The user can input a space or comma-separated list of items, or a single item, into the textbox.

1. Upon clicking `save`, the program will parse the list of items and save all of them to a text file using jQuery.

2. Upon clicking `load`, the program will retrieve the list of items from the text file using jQuery and output them on the screen.

3. The `save + load` button will first save and then load. You may not copy and paste your `save` and `load` code.

4. Upon clicking `clear`, the textbox, text file, and output will all be cleared. You may not refresh the page.