

CS/SE 6301, Spring 2015
Dr. Mithun Balakrishna
Homework 2
Due March 1st, 2015 11:59 pm

A. Submission Instructions:

- Submit your solutions via eLearning.
- Please submit a single zip file with the following files:
 - For programming questions:
 - Source code/script file(s).
 - A ReadMe file with instructions on how to access the demo.
 - For all other questions, a PDF/Doc/PS/Image file with the solutions.
- Late Submission Penalty:
 - up to 2 hours late — 10% deduction
 - 2 - 4 hours late — 20% deduction
 - 4 - 12 hours late — 35% deduction
 - 12 - 24 hours late — 50% deduction
 - 24 - 48 hours late — 75% deduction
 - more than 48 hours late — 100% deduction (zero credit)

B. Problems:

1. Upgrading HTML Page with JavaScript/JQuery (20 points)

In homework #1, you created XHTML page(s) with several HTML/HTML5 elements/attributes styled using CSS.

Using JQuery, for appropriate HTML/HTML5/CSS element(s)/attribute(s), perform the below specified effect(s) when the specified event is triggered:

	Event	Effect
1	Click	Element(s) Hide, Show, and Hide/Show toggle
2	Dblick	Element(s) FadeIn, FadeOut, FadeTo, FadeToggle
3	Mouseenter	Animate CSS
4	Mouseleave	Stop effects with callback
5	Keypress	Chain three (3) fading events
6	Keydown	Chain three (3) animate events
7	Keyup	Stop chained effects with callback
8	Blur	Get text, HTML, and attribute content of selected element(s)
9	Change	Get field value, and attribute content of selected element(s)
10	Focus	Set text, HTML, value, and attribute content of selected element(s) with callback

While implementing the above listed effects, please use the following HTML element(s) selection options in at least two (2) examples:

1. id
2. class
3. type
4. attribute
5. values of attribute

2. Adding/Removing Content from HTML Page with JavaScript/JQuery (25 points)

- a) The ability to change individual cells:
 1. If the user holds down the *Alt* key while moving the mouse, the table cells over which the mouse moves have their background color set back to white
 2. The cell should return to its original style when the mouse leaves a cell or when the *Alt* key is released
- b) Below the table, put a “add row” button which, when clicked, will add a new row to the table.
- c) Each row should have a delete button which, when clicked, will delete the appropriate table row.

3. Integrate a Shopping Cart into your Webpage (40 points)

- a) Create a simple shopping cart (with ability to add and remove items, and update item counts) on your webpage using JQuery or any other language
- b) You are free to use existing third-party libraries to perform this task. Some good resources for third party JQuery based shopping carts:
 1. <http://simplecartjs.org/>
 2. <http://www.jquery4u.com/plugins/10-jquery-based-shopping-carts/>

4. Explain in your own words the following (15 points):

- a. (5 points) Should we place JavaScripts in the HTML head or body? Please specify the necessary arguments for your choice.
- b. (5 points) Which JQuery event allows for proper handling of JavaScript code present in the HTML document head section? Why is this event handling required?
- c. (5 points) Provide example web application use cases that require:
 - Asynchronous communication
 - Synchronous communication