Lab 4 - jQuery

3/31/2024

100/100 Points

Attempt 1 ⌄	◯	**Review Feedback** **3/31/2024**	Attempt 1 Score: **100/100**	💬 View Feedback

Anonymous Grading: **no**

1 Attempt Allowed

4/7/2024

⌄ **Details**

jQuery

This lab demonstrates material from chapter 7 of the textbook.

Now that you have mastered JavaScript expressions, functions, objects, decisions, loops and events you have the opportunity to use jQuery to write less and do more!

Activities

For this lab, you will:

1. Create a new HTML file separate from previous labs. The page should contain as many page elements as you need to produce the required output for your theme.
2. Your page must use the same theme as your previous labs. Please describe your theme in an HTML comment. Each requirement must reflect your chosen theme.
3. Encapsulate your code using a function to ensure that the DOM has loaded before your code runs. The textbook suggests using $(document).ready but it is depricated.

```
$(function(){
    // your code here
});
```

4. Include the Google-hosted jQuery library before your JS file in your HTML.

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.1/jquery.min.js"></script>
```

5. Demonstrate a jQuery selection of multiple page elements by tag name or class name with a single jQuery selection. Filtering the selection is not necessary, but the selection must return multiple page elements. Consider converting a previous JavaScript getElementsByTagName() or getElementsByClassName() with jQuery.
6. Demonstrate a jQuery selection of a single page element by ID. Consider converting a previous JavaScript getElementById() with jQuery.
7. Demonstrate a filtered jQuery selection by tag name or class name. Filtering the selection is necessary. After the filter, the selection could return multiple page elements or just one. A filtered selection often uses a colon followed by the filter name. [:first :even :odd]
8. For each of the selections in requirements 5-7, use a jQuery method to change the content of the selection. Acceptable changes would be:
    - change the content
    - change the formatting (color, font, or size)
    - add a class

- remove a class
- animation
- any method listed in chapter 7 of the textbook - as long as it produces visible results on the page.

9. Use the .each() method to loop through a jQuery selection of multiple page elements.
10. Use $(this) inside the .each() loop with a jQuery method to create visible results on the page.
11. Use jQuery chaining to perform at least three methods on a single jQuery selection.
12. Use the .html() method either change or retrieve page content.
13. Use the .text() method either change or retrieve page content.
14. Add at least one element to the page using .before() .prepend() .append() or .after().
15. Use two jQuery methods [.attr() .removeAttr() .addClass() .removeClass()] to change the attribute values of at least two different page elements.
16. Use the .css() method to either change or retrieve the color of a page element.
17. Use the .on() method to register at least three events using jQuery.

    Example: Hover over me to change my color!

18. Use the Event Object with a jQuery event registration to create an event that responds differently depending on which page element was clicked.
19. Use at least three jQuery Effects methods to enhance your page with transitions and movement.
20. Use at least two jQuery methods to traverse the DOM to access a parent or sibling node of a previous selection. [.find() .closest() .parent() .children() .next() .prev()] Use jQuery methods to make changes to the selections.
21. Create at least two jQuery selections that use form element selectors. [:button :checkbox :checked :disabled :focus :image :radio :selected :submit :text] Use the selections to either make changes to the page elements or send their values to an output area on the page. Note: Your page must have a form to use form element selectors.
22. Use a jQuery method to remove an element from the page.
23. Use a jQuery plugin to add functionality to your page. be sure to use something that creates a noticeable change to your page.

    Suggested plugins:
    - **jQuery UI DatePicker** ⤷ (https://plugins.jquery.com/ui.datepicker/)
    - **jQuery UI Fold Effect** ⤷ (https://jqueryui.com/effect/)
    - **jQuery UI Autocomplete** ⤷ (https://plugins.jquery.com/ui.autocomplete/)

24. Check **the JS Console** (https://iu.instructure.com/courses/2214520/pages/the-js-console) for errors in your code.

Notes:

- All **HTML should validate** ⤷ (https://validator.w3.org/) .
- All **CSS should validate** ⤷ (https://jigsaw.w3.org/css-validator/) .
- Use **the JS Console** (https://iu.instructure.com/courses/2214520/pages/the-js-console) to check for errors in your code. *If your page crashes, there will be a 50% penalty.*
- Each file must contain a header block comment.
- All CSS and JavaScript must be stored in external files.
- Be sure that the page has finished loading before using JavaScript or jQuery to access page elements.
- Be sure that the jQuery library is loaded before attempting to use jQuery.
- Be sure that plugin libraries are loaded *after* the jQuery library and before the code that calls the plugin.
- All page output must be labelled clearly on the page. For example:
  - **Results of Adding a Class:** The class makes text change to red.
  - **Filtered Selection by Tag Name:** Only the even-numbered list items will turn green.
- All requirements listed in the rubric below **must be labelled clearly with comments** in the JavaScript file. For example:
  - $('p').each(function() {   // Req 10: Use the .each() method to loop through a jQuery selection.

- $('p').addClass('redText');   // Req 8: Add a class to a selection
- All output requirements must produce visible results on the page
- A page element cannot be "changed" to its original value. The new value must be different from the original one.

∨ **View Rubric**

Select Grader

Sravani Muddana (TA)   ∨

Lab 4 - jQuery

Criteria	Ratings	Pts
Requirements reflect the chosen theme. view longer description		10 / 10 pts
Encapsulate your code using a function.		2 / 2 pts
Demonstrate a jQuery selection of multiple page elements by tag name or class name with a single jQuery selection. Use a jQuery method to change the content of the selection. view longer description		6 / 6 pts
Demonstrate a jQuery selection of a single page element by ID. Use a jQuery method to change the content of the selection. view longer description		2 / 2 pts
Demonstrate a filtered jQuery selection by tag name or class. Use a jQuery method to change the content of the selection. view longer description		5 / 5 pts
Use the .each() method to loop through a jQuery selection of multiple page elements. Use $(this) with a jQuery method to create visible results on the page. view longer description		6 / 6 pts

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Criteria	Ratings	Pts
Use jQuery chaining to perform at least three methods on a single jQuery selection. view longer description		3 / 3 pts
Use the .html() method either change or retrieve page content. view longer description		4 / 4 pts
Use the .text() method either change or retrieve page content. view longer description		4 / 4 pts
Add at least one element to the page using .before() .prepend() .append() or .after(). view longer description		3 / 3 pts
Use two different jQuery methods to change the attribute values of two different page elements. view longer description		4 / 4 pts
Use the .css() method to either change or retrieve the color of a page element. view longer description		4 / 4 pts
Use the .on() method to register at least three events using jQuery. view longer description		6 / 6 pts
Use the Event Object with a jQuery event registration to create an event that responds differently depending on which page element was clicked. view longer description		5 / 5 pts
Use at least three jQuery Effects methods to enhance your page with		6 / 6 pts

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Criteria	Ratings	Pts
transitions and movement. view longer description		
Use at least two jQuery DOM methods to access a parent or sibling node of a previous selection. Use jQuery methods to make changes to the selections. view longer description		4 / 4 pts
Create at least two jQuery selections that use form element selectors. Use jQuery methods to either make changes to the page elements or send their values to output. view longer description		4 / 4 pts
Use a jQuery method to remove an element from the page. view longer description		2 / 2 pts
Use a jQuery plugin to add functionality to your page. view longer description		5 / 5 pts
Each requirement is labelled with comments.		5 / 5 pts
HTML validates at https://validator.w3.org/		3 / 3 pts
All student files contain header block comments. view longer description		3 / 3 pts
CSS file validates at https://jigsaw.w3.org/css-validator/		2 / 2 pts
Use the JS Console to find and correct errors in your JavaScript		2 / 2 pts

Total Points: 100

https://cs.iupui.edu/~parmsing/n341/labfour/add_content.html

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(https://iu.instructure.com/courses/2214520/modules/items/31320391)

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