ITMD 465/565

Lab 3

Introduction

This lab will have you try to implement some of the JavaScript syntax and basic DOM manipulation similar to what we discussed in class.

Objective

Create a single HTML5 file that includes some CSS and JavaScript embedded on the page. This single file will have some basic JavaScript functionality where the scripts gather information from form fields and modify the page with basic DOM manipulation.

Requirements

- All HTML tags and page structure should be **HTML5** compliant
- CSS and JavaScript need to be embedded in the HTML page. I only want one HTML file turned in, it must be zipped.
- HTML is provided for you. **Do not modify the HTML except where noted with comments.** You may add CSS in the top of the document where the comment states if you think you need to.
- All JavaScript should go at bottom of the body where indicated with comments.
- Do not put any spaces in your file name. Name files as show in submission guidelines.
- Do not use jQuery for this lab. Pure JavaScript for DOM manipulation.
- User must be able to run the lab again without refreshing. Do not add to the results replace them.
- The reset button should clear out all the fields and results. The reset button should be disabled and not able to be clicked unless there are results on the page. Reset button should be disabled again after clicking it and clearing the page.

Steps

1. Place all JavaScript in the embedded script tag at the bottom of the body section.
2. You need to create a function. It should execute when the run lab button is pushed. This function needs to be added to the button as click event handler with the addEventListener JavaScript function. This function will contain most of your code.
3. The function should get the input from the two text boxes and the color select menu. If either text box is empty you should use a JavaScript alert prompt to tell the user they must have content and stop executing the function. Use the parseInt function or Number() object constructor to convert the quantity text box to a number. Highly suggest Number() object vs parse functions. If the user didn't enter a positive number use a JavaScript alert box to tell them quantity needs to be a number and do not

continue executing the function. You will be using multiple if/else conditional statements and return statements probably.

4. If everything is ok with the text input and quantity box add that quantity of output boxes to the results area. The results should be placed in the div with id=”resultsWrapper”. You will need a loop for this. Each output box should consist of a div with a H2 as the headline and a P as the body text nested inside it. The H2 should have “Item” and the number it is in the loop, so like “Item 1”. Don’t start the numbering at zero. First element should be 1. The div and H2 should be colored based on the choice in the color drop down. You can do this multiple ways. You could add inline styles to the div and H2 or you could add a class to the div and then write CSS to color each item. The class and CSS route are probably the better choice. Some CSS for this already exists in the html template. You may add CSS to the template in the space provided. It can be done with the markup and CSS in the template only. ITMD-565 students will have additional requirements here, see below.
5. You will also need to clear the values out of the body text input and quantity input on a successful attempt.
6. If the user runs the lab again it should automatically clear the lab results first. You should be able to rerun the lab without refreshing the browser. **Do not add more boxes to the results, replace them.**
7. You will also need to create another function that is bound to the click event on the reset button. The reset button should be disabled if there is not content in the results section. Enable it on successful attempt and disable after reset clicked. There is a property for this on buttons. It should behave as described in the requirements section.

Graduate Additional Requirements

If you are involved in **any section of 565** you need to complete the additional requirements listed here.

Without editing any HTML you will also have to add a delete button to each item in the results list. You will have to add the button to the result item using DOM creation and manipulation methods when you are creating the result items in step 4. The button should have the word “Delete” as its text. The button can be added below the P tag with the body copy in it.

Once the lab is run and there are results you should be able to click a delete button on one of the results to delete only that result.

You will need to create the results boxes using the pure DOM manipulation functions. Do not just make a string of html and set it with innerHTML. You will need the createElement(), createTextNode(), and appendChild() methods. You may use innerHTML for other purposes if needed.

README File

Not Required for this Lab

Due Date / Late Policy

This assignment is due **Wednesday September 26, 2018 6:25 PM Chicago Time**. We will discuss this in class on September 26 so **no assignments will be accepted as of class (6:25pm) that night**. **No Extensions will be given or late work accepted.**

Submission Guidelines

You must upload your submission, to the blackboard assignment by the due date. The submission must be in the following format and structure. If you do not submit your assignment exactly as specified, you will receive an immediate 5% deduction.

Submission Format Specification:

YourUsername_lab3.zip
|----------YourUserame_lab3.html

Help

JavaScript Functions:
getElementById()
addEventListener()
createElement()
createTextNode()
appendChild()
removeChild()
alert()
parseInt() vs Number()
isNAN()
value property of a form control
className property of an element and how it relates to the class attribute
disabled attribute for form control and how to set it in JavaScript

https://developer.mozilla.org/en-US/docs/Web/API/Node
https://developer.mozilla.org/en-US/docs/Web/API/Element
https://developer.mozilla.org/en-US/docs/Web/API/Document
https://developer.mozilla.org/en-US/docs/Web/API/Node/removeChild
https://developer.mozilla.org/en-US/docs/Web/API/Node/appendChild
https://developer.mozilla.org/en-US/docs/Web/API/Document/createElement
https://developer.mozilla.org/en-US/docs/Web/API/Document/createTextNode

https://developer.mozilla.org/en-US/docs/Web/API/Document/getElementById
https://developer.mozilla.org/en-US/docs/Web/API/Window/alert
https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/parseInt
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