Lab 2 - Decisions, Loops & DOM

100/100 Points

2/11/2024

Attempt 1

Review Feedback
2/11/2024

Attempt 1 Score:
100/100

View Feedback

Anonymous Grading: **no**

1 Attempt Allowed
1/21/2024 to 2/18/2024

Details

Using Decisions and Loops ⋮ Manipulating the DOM

This lab demonstrates material from chapters 4 and 5 of the textbook.

Now that you have mastered JavaScript expressions, functions and objects, it is time to expand upon that skill with decisions and loops. Then, we'll try using the DOM to update the page.

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.
2. Your page must use the same theme as Lab 1. Please describe your theme in an HTML comment. Each requirement must reflect your chosen theme.
3. Demonstrate the use of an if/else construct.
4. Demonstrate the use of at least two of the following comparison operators:
   - ==
   - !=
   - ===
   - !==
   - >
   - <
   - >=
   - <=
5. Demonstrate the use of at least two of the following logical operators:
   - &&
   - ||
   - !
6. Demonstrate the use of the switch statement with at least three case values and a default code block.
7. Use parseInt() to demonstrate the difference between adding two digits stored as strings and adding the same two digits stored as integers:
   - For example, "1" + "2" == "12" **vs.** 1 + 2 == 3
   - For help check out the **JS Weak Typing Demo** (https://cs.iupui.edu/~linglu/n341/demos/weakDemo.html) .
   - For an example check out the **parseInt() demo** (https://cs.iupui.edu/~linglu/n341/demos/conversionsDemo.html) .
8. Demonstrate the difference between == and ===.

9. Use a loop to output the contents of an array to the page.
10. Use a Truthy value in a condition without an operator. The Truthy value should **not** be Boolean.
11. Use a Falsy value in a condition. The Falsy value should **not** be Boolean.
12. Select a single page element and change the textContent.
13. Select at least three page elements by their class attribute or tag name and use innerHTML to change the formatting as well as the content.
14. Loop through the selection from step 13 and add a new class attribute to each one. This change must show visible results on the page.
15. Use innerHTML to change the formatting as well as the content of a page element.
16. Add a page element with content to the page.
17. Select a page element based on its ID or class attribute value.
18. Change the value of the ID or class that was selected in step 17. Changing the attribute value must show visible results on the page.
19. Remove a page element.

Notes:

- All **HTML should validate (https://validator.w3.org/)**.
- 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.
- All page output must be labeled clearly on the page. For example:
  - **Results of switch construct:** Today is Tuesday.
  - **textContent changed to:** I love tacos.
- All requirements listed in the rubric below **must be labeled clearly with comments** in the JavaScript file. For example:
  - `if ( x < y ) {  // Req 3: Demonstrate if/else construct`
  - `while ( x < y ) {  // Req 9: Use a loop to output the contents of an array to the page`
- 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.
- Hint: It is a good idea to make it easy for the grader to find each requirement.

View Rubric

Select Grader

Sravani Muddana (TA)

Lab 2 - Decisions, Loops and DOM

Criteria	Ratings	Pts
Demonstrate the use of an if/else construct. view longer description		3 / 3 pts
Demonstrate the use of at least two different comparison operators. view longer description		2 / 2 pts

Lab 2 - Decisions, Loops and DOM

Criteria	Ratings	Pts
Demonstrate the use of at least two logical operators view longer description		2 / 2 pts
Demonstrate the use of the switch statement. view longer description		4 / 4 pts
Use parseInt() to demonstrate weak typing. view longer description		5 / 5 pts
Demonstrate the difference between == and ===.		4 / 4 pts
Use a loop to output the contents of an array to the page.		5 / 5 pts
Use a Truthy value in a condition without an operator.		2 / 2 pts
Use a Falsy value in a condition without an operator.		2 / 2 pts
Select a single page element and change the textContent.		2 / 2 pts
Select at least three page elements by their class attribute or tag name with a single selection.		5 / 5 pts
Change the formatting as well as the content of each element selected in the previous requirement. Also, loop through the selection from the previous requirement and add a new class attribute to each one. view longer description		15 / 15 pts

Lab 2 - Decisions, Loops and DOM

Criteria	Ratings	Pts
Use innerHTML to change the formatting as well as the content of a page element.		4 / 4 pts
Add a page element with content to the page.		5 / 5 pts
Select a page element based on its ID or class attribute value.		2 / 2 pts
Change the value of the ID or class that was selected in the previous requirement. view longer description		5 / 5 pts
Remove a page element.		4 / 4 pts
Each requirement is labelled with comments. view longer description		10 / 10 pts
HTML validates at https://validator.w3.org/		3 / 3 pts
HTML file contains a header block comment. view longer description		3 / 3 pts
JavaScript file contains a header block comment. view longer description		3 / 3 pts
Requirements reflect the chosen theme. view longer description		10 / 10 pts
		Total Points: 100

https://cs.iupui.edu/~parmsing/n341/labtwo/

(https://iu.instructure.com/courses/2214520/modules/items/31320379)

(https://iu.instructure.com/courses/2214520/modules