

SE 3316A Web Technologies Lab #2: Due Friday, Oct. 6, 5:00 pm

Deadlines:

Submission deadline: Friday, Oct. 6, 5:00 pm. Late submissions accepted until Sunday Oct. 8, 11:55 pm (2 point penalty).

Demonstration deadline: End of assigned lab section.

Change Log

1. In Rubric, added penalty for absolute URLs, 11am, Sep 28
2. Added Github classroom link, 2pm, Oct 2
3. Fixed the typo on header about due date, 4pm, Oct 2
4. Added naming requirement for the zip file, 1:30pm, Oct 4

Objectives:

- A. Create a HTML document that shows 20 countries and shows two search boxes to search for countries by name or currency code along with input validation as in step A-C of lab 1.
- B. Using JavaScript, modify the DOM of this page so that:
 - a. Create a new content block (e.g. DIV) at the top of the page (below the search buttons) .
 - b. Create a new list (any list) inside this block and add list elements for all of the search results (not limited as in lab 1). Each list element must have all the information that is present in the full list. E.g. image, description etc.
 - c. Dynamically update this list as the user is typing new characters or deleting characters in the search box. E.g. when the user deletes all the characters, the new content block should disappear.
 - d. Use JavaScript to create new elements.
 - e. Style the new content block to be visually distinct from the full list.
- C. Using valid HTML - check with validator.w3.org and ensure no errors or warnings
- D. Use pure JavaScript without using any external library.

Workflow:

1. Create a new branch in your lab 1 repository with the name "lab2" and use this branch to implement lab 2.
2. Push your project to Github (see tips on how to properly push a new branch).
3. Familiarise yourself with the basics of using JavaScript to modify DOM. If you are a beginner, you may follow the JavaScript tutorial on W3Schools (JS HTML DOM section, may skip CSS, and Animations sections)
4. Use JavaScript to pick an element using **document.getElementById()** or **document.querySelector()** method, creating new elements and content using **.createElement()** or **.createTextNode()** method and then adding the newly created elements to the selected node using **appendChild()** method.
5. Do not use the **.innerHTML()** method to create content.

Rubric (out of 100):

1. Basic HTML page with images and descriptions of 20 countries with search and input validation functionality (Lab 1, objectives A-C): 5
2. Creating a new branch and using this branch to deploy code to server: 15
3. Access the page with full functionality on a public URL: 5
4. Modifying DOM to add search results to a new content block above original content: 45
5. Modifying DOM to remove search results when new characters are entered: 20

6. Styling the search results section to be visually distinct: 10
7. Using external libraries: -25
8. Validation errors as reported by validator.w3.org: -5 each
9. Validation warnings as reported by validator.w3.org: -1 each
10. Use of absolute URLs for internal resources: -5 each
11. Code management with Git
 - a. Less than 5 commits in lab 2 branch after last commit for lab 1: -5
 - b. No meaningful commits: up to -10
 - c. No meaningful commit messages: up to -5
 - d. Not adhering to Git repository naming convention: -5
 - e. Not using a proper **.gitignore** file to ignore images: -5
 - f. Not using Git pull to deploy code to server: -5
12. Logistics
 - a. Zip file name not in required format (se3316-lab2-xyz): -5
 - b. No zip file: not graded
 - c. Code is not attached as a zip file or it contains content that is not in the Git repository¹ or is missing content that is in the repository: -10

Submission Instructions:

Please carefully read the instructions and strictly follow them. Your grade depends on it.

1. Ensure that your repository is private.
2. Use a proper **“.gitignore”** file so that only the files that you edit are in your repository.
3. Make frequent commits with an appropriate commit message.
4. Ensure that you understand the principles behind your code.
5. Ensure that Github contains the latest version of your code.
6. Copy the output of command **“git log”** and paste that onto the submission page (Assignments section) on Owl.
7. Download your repository as a zip file from Github and submit as an attachment.
8. Submit your lab to Github Classroom - <https://classroom.github.com/a/ZIVnKINP>.
9. Demonstrate your lab before the demonstration deadline.

Implementation Tips

- When you create a branch on a local repository, the normal “git push” command does not push the new branch. Use the command: **git push -u origin lab2** to push the new branch. This only needs to be done once to register the new branch as part of “upstream”. Subsequent “git push” commands will push all branches.

Penalties will apply for not following the naming convention or any of the submission steps.

¹ If you zip the file on desktop, it may often include hidden files (particularly on Mac) or the .git folder itself.