

ASSIGNMENTS

Note. The assignments in this course are aimed at helping you in being able to critically evaluate website designs/assess good website designs, and helping you conceptualize and develop your own website. All assignments are linked, i.e. each assignment will help you create one aspect of the website you conceptualize/design. Here is an example - you design a website template in assignment 1, create HTML elements for this website in assignment 2, and so on. Each assignment makes your website a little more functional. Descriptions of the assignments are posted in advance so that you are aware of what is expected from you for each assignment. You are not expected to submit all assignments at the same time – each assignment has its own due date.

Any late changes (if necessary) made to this document or any of the assignments will be notified in class and via email.

Purpose. The purpose of these assignments are to test your comprehension of the various concepts discussed in class, and your ability to apply them to solve a given problem.

Grades. Each assignment will be graded out of 50 points, and will be scaled to 10 points. Each assignment is 10% of the total course grade.

Software / Code Editors. Assignments must be completed without the aid of "visual" website generating software. This includes desktop programs such as Dreamweaver or web based programs such as Wix. You can use tools such as Sublime Text / Atom / Notepad / Notepad++ / Vi / Vim, etc.

Submission. All deliverables must be submitted on Brightspace: <https://dal.brightspace.com>

Late submission policy. **Late submissions will not be accepted.** You will receive a 0 on the assignment if you do not submit it. Because these assignments are linked, it is recommended that you plan your work in advance and submit the assignment before the deadline.

Academic Integrity. Dalhousie academic integrity policy applies to all submissions in this course. You are expected to submit your own work. Please refer to and understand the academic integrity policy, available at: <https://www.dal.ca/academicintegrity>

Content for the website. Do not copy and paste content from the websites that you might create. If you want to include content on your website, you have to either create your own content, or use dummy text (Lorem Ipsum...). You can use the Lorem Ipsum generator to generate paragraphs of dummy text: <http://www.lipsum.com>

Question. “I was not able to submit one of the assignments. What do I do?”

If you were not able to submit one or more of the assignments, send me an email. We will meet and decide a course of action.

Assignment 1**Due date: Thursday, September 21, 2017 (11:30pm)**

This assignment requires you to apply the concepts of designing a website discussed in class, i.e. critically evaluating an existing website and applying your design skills to conceptualize your own website.

Choose ONE (1) website from the following list:

1. Reddit (www.reddit.com)
2. Halifax Waterfront (www.my-waterfront.ca)
3. GSM Arena (www.gsmarena.com)
4. Android Authority (www.androidauthority.com)
5. View Point (www.viewpoint.ca)

For the website you chose from the above list, do the following:

- A1.1. Describe the characteristics of the website's users. Who are they and what do they look for? (about 450-550 words, in Arial 10pt font, single-spaced).
- A1.2. Use Nielsen's usability heuristics (available on Top Hat) to perform an evaluation of the website. Focus only on answering the questions listed under each heuristic guideline. In your response, you should include specific examples. If one of the guideline is not observed, then, write "not observed", and justify why it was not observed. **Try to find as many concrete reasons why some aspect of the website fails / passes, i.e. don't just limit yourself to one element of a page that fails / works well. Examine if there are other elements that fail / work well. Provide screenshots with justifications – to highlight if it passes a given heuristic.**
- A1.3. From your chosen website, choose TWO (2) web pages. This must include the **homepage** (the landing web page that you first see when visiting the website) and **one other page** on the website. **Do not** choose the contact page as one of the pages you choose for this assignment.

Think about how you would design these web pages, if you were asked to. For each chosen web page, do the following:

- a. Create a wireframe representation of how you would design them.
Your wireframe representation **must not be identical to the current appearance of the chosen website**.
- b. Be creative, but consider the C.R.A.P design principles, the Golden Ratio and organization of the structural design elements that we have discussed in class.
- c. In about 500-600 words, justify the design; i.e. discuss principles that you have considered and justify why you have designed the page in this way.
- d. Identify all structural elements on the wireframes. E.g. identify paragraphs of text, logo images, etc.

Submissions. You can include answers for A1.1, A1.2 and A1.3 in a single document named [A1.pdf](#) and submit this document in the A1 submission module on Brightspace.

Note.

- This assignment does not require you to submit any code.
- If you use a tool to create the wireframe, you **must** indicate which tool you have used.

Assignment 1: Marking rubric.

	Exceptional (80-100%)	Acceptable (70-79%)	Substandard (50-69%)	Unacceptable (<50%)
User Characteristics (5 marks)	Includes a thorough assessment of the type of users (at least 3) who could visit the website, and provides an analysis of how user interaction and information seeking behaviours might differ.	Includes an assessment of some of the users (at least 2) who could visit the website, and provides an analysis of how user interaction behaviours might differ.	Includes an assessment of some of the users (1-2) who could visit the website, and provides minimal analysis of user interaction behaviours.	Includes an assessment of some of the users (1-2) who could visit the website, and provides bare minimum or no analysis of user characteristics.
Heuristic Evaluation (20 marks)	Includes a thorough evaluation of the website, and includes concrete reasons and examples for elements (at least 2 elements) of website passing/failing all guidelines, and justification if examples of guidelines are not observed.	Includes an evaluation of the website, and includes reasons and examples for elements (less than 2) of website passing/failing all guidelines, and justification if examples of guidelines are not observed.	Includes an evaluation of the website, and includes reasons and examples for elements (less than 2) of website passing/failing some guidelines.	Includes minimal evaluation of the website, and includes no reasons and examples for elements of website passing/failing guidelines.
Wireframe Design and Justification (25 marks)	Includes wireframes for both pages; the designed wireframe is clean, neat and very well organized. Conceptualized elements of the website are articulated clearly. The design is planned carefully; understanding of all concepts is clearly demonstrated.	Includes wireframes for both pages; the designed wireframe is clean, neat and organized. Most conceptualized website elements are articulated clearly. Understanding of all concepts and instructions is clearly demonstrated.	Includes wireframes for both pages; Wireframe is somewhat neat and fairly well organized. Conceptualized website elements are articulated moderately well. understanding of all concepts and instructions is fairly well demonstrated.	Includes wireframes for at least one page; Wireframe is cluttered and not well organized. Conceptualized website elements are articulated poorly. Understanding of all concepts and instructions is poorly demonstrated.

Assignment 2**Due date: Thursday, October 19, 2017 (11:30pm)**

This assignment requires you to apply the concepts of creating basic HTML elements for a website, discussed in class.

For this assignment, you must use the website you chose in Assignment 1. The wireframe submitted as your Assignment 1 submission should be used as the guideline for creating HTML elements in Assignment 2.

For the TWO (2) web pages you chose in Assignment 1 (A1.3), do the following:

- A2.1. Using the wireframe for these two web pages submitted in Assignment 1, identify the key HTML elements (e.g. headings, navigation, divisions, media, etc.) that you would expect to be required when developing the website. List them in a document named [A2-1-Elements.pdf](#) and explain why you need them, i.e. for each element, identify in which structural element of the web page you will be using it (e.g. - to be used for logo and banner image).
- A2.2. Create TWO (2) HTML pages – [index.html](#) and [page2.html](#). **Note.** Try to find a second page on the website that you will re-create, and use the same name – i.e., **do not** use the name “page2.html” – the name of the file must be indicative of the name of the page. I have mentioned [page2.html](#) here only because there are three websites to choose from and many pages within them!
- A2.3. Create the elements you have identified in A2.1 in these two HTML pages. When creating and grouping/positioning elements, consider the visual hierarchy that you have established in the wireframe from Assignment 1. This should help you include HTML code for the various elements closer to each other, so that when you apply CSS to the pages, the elements will align in the expected positions.

An example of this is a “container division” that contains three other divisions, which have the content. When coding for this, you would place the “content divisions” one below the other, inside the “container division”. When you apply CSS, you can correctly position the content divisions to appear next to each other, or in any other way you envision.
- A2.4. Make sure that there are two items in the Navigation – a link to “Home”, which should link to [index.html](#) and a link to the chosen “Page 2”, which should link to [page2.html](#) (the page should not be named [page2.html](#) - refer to A2.2).
- A2.5. For content, you **may** simply use dummy text – you can use the *Lorem Ipsum* generator to generate filler text (<http://www.lipsum.com/>). **Do not copy/paste content from the web pages online.**
- A2.6. Remember that you are not adding styles to any elements in this assignment. You are simply required to create the various HTML elements in the two pages that you have chosen. However, in the <head> section of your website, include a reference to the CSS file named “[styles.css](#)” – **you will submit this file in the next assignment.** You must include a placeholder reference for the file in this assignment.
- A2.7. **W3C Validation.** Your web pages must be validated on W3C Validation service (https://validator.w3.org/#validate_by_input) – test your files by copying/pasting the HTML markup to the validator service, and save the result as a PDF ([W3C-validation-result.pdf](#))

Submissions. Create a folder called [A2](#). Put the HTML files ([index.html](#) and [page2.html](#)) inside the folder named [A2](#), along with the document with a list of identified HTML elements ([A2-1-Elements.pdf](#)), and the results of the W3C Validation ([W3C-validation-result.pdf](#)). Also include the wireframe from assignment 1 ([A1-Wireframe.pdf](#)). Compress this folder to create either [A2.zip](#) or [A2.rar](#). Submit this compressed folder as your assignment on Brightspace.

Note.

- You must not simply duplicate elements from the chosen website in this assignment (A2.1).
- You must use HTML5 semantic document divisions (discussed in class) where possible, instead of simply using divisions `<div>`.
- You **must not** copy / paste code from any websites – this amounts to plagiarism. Do not copy / paste text and content from the websites either.
- **Images.** If you want to use images on your website, be sure to use images that are published under Creative Commons licenses, i.e. you can use them with proper attribution. A good place to search for such images is on the Creative Commons website: <http://search.creativecommons.org/>
Always remember to attribute credit to the image creator. Credit should either be in HTML comments or in a separate document named "README.txt"
- You are expected to use the wireframe (from the previous assignment) as a reference.
- The emphasis here is for you to apply your knowledge of identifying elements from the wireframe. You are in the process of creating your website, from the conceptualized design in the wireframe.
- This helps you translate your ideas / concepts from class into actual websites, allowing you to apply what you have learned.
- ***"What if I want to include additional features (CSS / JavaScript) in A2?"***
Well, you are welcome to include additional features in A2. I will not stop you. However, bear in mind the following:
 - Your submission **must** meet the criteria specified in A2, first and foremost. Beyond this, you are welcome to include additional aspects of future assignments. However, **no bonus will be granted or replacement will be allowed** for any missing aspects of A2.
 - You stand to lose points if the additional markup / CSS / JavaScript elements that you might add interferes with the basic requirements of A2.
 - I will not stop you from exploring beyond what is taught in class or what is expected in these assignments. However, please be mindful of what you submit as your assignment submission.

Assignment 2: Marking rubric.

	Exceptional (80-100%)	Acceptable (70-79%)	Substandard (50-69%)	Unacceptable (<50%)
HTML Elements and Justification (5 marks)	Includes a list of all HTML elements available in the wireframe from Assignment 1.	Includes a list of most HTML elements available in the wireframe from Assignment 1.	Includes a list of some of the HTML elements in the wireframe from Assignment 1.	Includes only a few elements in the wireframe from Assignment 1.
HTML Pages (20 marks)	Includes HTML markup for both pages, with page 2 not named as page2.html. Markup includes all elements listed in the HTML elements document. The markup includes a reference to styles.css. The markup includes comments to explain/identify sections of the web page/elements, etc.	Includes HTML markup for both pages. Markup includes most of the elements listed in the HTML elements document. The markup includes a reference to styles.css. The markup includes some, minimally detailed comments.	Includes HTML markup for both pages.	Includes minimal evaluation of the website, and includes no reasons and examples for elements of website passing/failing guidelines.
W3C Validation (10 marks)	All elements of the web pages are validated.	Most elements of the web pages are validated.	Some elements of the web pages are validated.	Very few elements of the web pages are validated.
Content (including images) (7 marks)	Fair use guidelines are followed with clear, easy-to-locate and accurate citations for all borrowed material. No material is included from websites that state that permission is required unless permission has been obtained.	Fair use guidelines are followed with clear, easy-to-locate and accurate citations for almost all borrowed material. No material is included from websites that state that permission is required unless permission has been obtained.	Fair use guidelines are followed with clear, easy-to-locate and accurate citations for most borrowed material. No material is included from websites that state that permission is required unless permission has been obtained.	Borrowed materials are not properly documented OR material was borrowed without permission from a site that requires permission.
Navigation (including other links on the pages) (8 marks)	Links for navigation are clearly labeled, consistently placed, allow the reader to easily move from a page to related pages (forward and back), and take the reader where s/he expects to go. A user does not become lost.	Links for navigation are clearly labeled, allow the reader to easily move from a page to related pages (forward and back), and internal links take the reader where s/he expects to go. A user rarely becomes lost.	Links for navigation take the reader where s/he expects to go, but some needed links seem to be missing. A user sometimes gets lost.	Some links do not take the reader to the sites described. A user typically feels lost.

Assignment 3***Due date: Thursday, November 2, 2017 (11:30pm)***

This assignment requires you to apply the concepts of styling website elements, discussed in class.

For this assignment, you must use the website you chose in Assignment 1, and for which you submitted the HTML code in Assignment 2. The wireframe submitted as your Assignment 1 submission should be used as the guideline for positioning the elements from Assignment 2, using CSS in Assignment 3.

Furthermore, you must use the same HTML files submitted for Assignment 2, and apply the CSS. Changes to the HTML are accepted only if they fix any errors in HTML / require re-aligning elements. No design changes allowed.

For your chosen website from Assignment 1, and using the HTML pages submitted in Assignment 2, do the following:

- A3.1. Create a style scheme. When deciding styles for your pages, think about (but do not limit yourselves to) the following – Colours (for backgrounds, text, headings, navigation, etc.), Margins (for the various page elements), Dimensions, Positions, Display, Alignment, and Elements (sections, navigation, etc.). In a document named [A3-1-StyleScheme.pdf](#), describe your style scheme, and what styles you have considered for the elements on your web pages. **Justify your choice** (400-500 words). For this part of the assignment, you are justifying the styles you plan to use in the website, i.e. think of the rationale behind using a specific colour scheme or a specific type of indentation/design, etc.
- A3.2. Create a CSS file, [styles.css](#)
- A3.3. In styles.css, include the styles for various elements on the HTML page from Assignment 2, based on the scheme you have discussed in A3.1
- A3.4. You can assume that the HTML and CSS files are saved in the same directory / folder.
- A3.5. Test your HTML pages by viewing the HTML page on any web browser. Save the results as PDFs ([A3-5-CSS-Result-index.pdf](#) and [A3-5-CSS-Result-page2.pdf](#))
- A3.6. Your HTML files, if changed, must be checked again for validation using W3C Validator – link in Assignment 2.
- A3.7. Create a folder with your name on Gitlab (<https://git.cs.dal.ca>) and upload all of your code up to and including this point. For example, a student named John Doe would create a folder named JohnDoe and upload the code from the folder named A3 (check submissions section of this assignment to see what the A3 folder must contain). After you have uploaded the code, take a screenshot of the folder from the Gitlab website to confirm that your folder has been uploaded.
- A3.8. **W3C Validation.** Your CSS file must be validated using the W3C Validation service (https://jigsaw.w3.org/css-validator/#validate_by_input). You can validate your CSS copying/pasting the CSS into the validator service, and save the result as a PDF ([W3C-CSS-validation-result.pdf](#))
- A3.9. **Include HTML files from Assignment 2 along with your submissions for Assignment 3.**

Submissions. Create a folder called [A3](#). Put the CSS file ([styles.css](#)) inside the folder named [A3](#), along with the document with a description of the style scheme ([A3-1-StyleScheme.pdf](#)), Gitlab screenshot ([A3gitscreenshot.png](#) or [A3gitscreenshot.jpg](#)) and the results of the W3C Validation ([W3C-CSS-validation-result.pdf](#)). Compress this folder to create either [A3.zip](#) or [A3.rar](#). Submit this compressed folder as your assignment on Brightspace. If your HTML files have changed, you must include W3C validation for the HTML as well.

Note.

- You **must not** simply duplicate CSS styles from the chosen website in Assignment 2 (A2.1).
- You **must not** copy / paste code from any websites – this amounts to plagiarism. Do not copy / paste text and content from the websites either.
- **Images.** If you want to use images on your website, be sure to use images that are published under Creative Commons licenses, i.e. you can use them with proper attribution. A good place to search for such images is on the Creative Commons website: <http://search.creativecommons.org/>
Always remember to attribute credit to the image creator. Credit should either be in HTML comments or in a separate document named "README.txt"
- You are expected to use the wireframe (from Assignment 1) as a reference to help you guide your styling exercise, and to help with choosing the colour scheme for the website.
- The main objective of this assignment is to let you apply the CSS styles on the page and learn how the styles affect various elements.

Assignment 3: Marking rubric.

	Exceptional (80-100%)	Acceptable (70-79%)	Substandard (50-69%)	Unacceptable (<50%)
Style Scheme (5 marks)	Includes a detailed style scheme for the website. Conceptualized style elements of the website are articulated clearly. Justification is provided for the styles used in the design. The design is planned carefully; understanding of all concepts is clearly demonstrated.	Includes a detailed style scheme for the website. Most conceptualized style elements are articulated clearly. Justification is provided for the most of the styles used in the design. Understanding of all concepts and instructions is clearly demonstrated.	Includes a moderately detailed style scheme for the website. Conceptualized style elements are articulated moderately well. Understanding of all concepts and instructions is fairly well demonstrated.	Includes a style scheme for the website. Conceptualized website elements are articulated poorly. Understanding of concepts and instructions is poorly demonstrated.
CSS and organization (20 marks)	Includes CSS for all elements identified in the style scheme; articulated clearly. Appropriate folder structure is followed. Consistency is displayed in styling various elements. Understanding of all concepts is clearly demonstrated.	Includes CSS for elements identified in the style scheme; articulated mostly clearly. Appropriate folder structure is followed. Moderate consistency is displayed in styling various elements. Understanding of concepts is clearly demonstrated.	Includes CSS for elements identified in the style scheme; articulated somewhat clearly. Folder structure is followed. Moderate consistency is displayed in styling various elements. Understanding of all concepts is fairly well demonstrated.	Includes CSS for elements identified in the style scheme; articulated poorly. Folder structure is not followed. Consistency is not displayed in styling various elements. Understanding of concepts is poorly demonstrated.
W3C Validation (5 marks)	All elements of the style sheet are validated.	Most elements of the style sheet are validated.	Some elements of the style sheet are validated.	Very few elements of the style sheet are validated.
Applying the Style Sheet to the web page (10 marks)	Layout is well-organized; font size is in relation to the size of the page; size and quality of images is appropriate; great contrast between background and text. All pages are linked properly; all pages link back to the homepage; interactive buttons are easily noticeable; links are connected to right information.	Layout is organized; more than three fonts sizes; size and quality of images is appropriate; great contrast between background color and text. All pages are linked properly; pages not linked to homepage; interactive buttons noticeable; links to other information are connected properly.	Layout is somewhat organized; too many different font sizes; images are too big/small; background color and text somewhat contrast. Pages linking is inconsistent; pages link back to homepage; interactive buttons hard to find; links to other information are present but do not work.	Layout and design is unorganized; background color is too dark/light for foreground colours; fonts either too big/small. Pages are not linked; one or more interactive buttons missing; no hyperlinks to other information.
Including HTML markup from Assignment 2 (5 marks)	Includes all HTML pages from assignment 2 (5 marks).	--	--	Does not include HTML pages from assignment 2 (0 marks).
Uploading Code to Gitlab (5 marks)	Uploads code to Gitlab (5 marks).	--	--	Does not upload code to Gitlab (0 marks).

Assignment 4**Due date: Thursday, November 17, 2017 (11:30pm)**

This assignment requires you to apply the concepts of making a website interactive using JavaScript, discussed in class. By now, you have applied HTML and CSS concepts to your web pages from Assignment 1, and have a working website with two pages.

For this assignment, you must use the same website you chose in Assignment 1, and for which you submitted HTML and CSS files in Assignments 2 and 3, respectively. Use the same HTML and CSS files that you submitted for the previous assignments. Changes are only accepted in these files if they fix any errors – and to accomplish the goals of this assignment. No other design changes are allowed.

For the web pages you have designed and developed in Assignments 1, 2 and 3, do the following:

- A4.1. Modify the Navigation element to include a page called “Contact” – this must link to [contact.html](#)
- A4.2. [contact.html](#) must include a contact form with the following elements:
 - a. A text field for Name (should be mandatory)
 - b. A text field for E-mail address (with format check, should be mandatory)
 - c. A text area for Message (should be optional)
 - d. A button <button> that performs Submit action
 - e. A button <button> that performs Clear (or reset) action
- A4.3. When the user clicks on “Submit,” the form need not perform any action – you are just expected to code it to display an [alert message](#) confirming “Message submitted”. After the alert is displayed, the form fields must be cleared – i.e. all text must be removed.
- A4.4. Include the JavaScript code required to process the user click event in a separate JavaScript file called [uihandler.js](#) – you must include a reference to this file in the <head> section of the HTML file.
- A4.5. **Gitlab.** Starting with the folder that you created in Gitlab in A3, you must create a new branch named “A4”. Make all changes using that branch, and merge it with the Origin/Master branch. After you have merged all changes on Gitlab, take a screenshot of the folder from the Gitlab website to confirm that your folder has been uploaded.
- A4.6. **W3C Validation.** You must ensure that all your HTML and CSS submissions are validated. (Save validation results in the following files [W3C-Validation-index.pdf](#), [W3C-Validation-page2.pdf](#), and [W3C-Validation-CSS.pdf](#)).
- A4.7. **Reflective note.** Think back about your design and development process – Beginning with Assignment 1 until Assignment 4. What have you learned in this process? Describe the evolution of your web pages with each assignment in your own words, and reflect on the process. How would you have approached the set of assignments differently, if you were given the same assignments again?

Include the reflective note in a document named [A4-6-Ref-Note.pdf](#) (minimum 1 page, Arial 10pt font, single line spacing).

- A4.8. **BONUS (10% of the overall grade you receive for Assignment 4).** For the contact form in A4.2, implement the JQuery functionality that lets you e-mail the message to a specified e-mail address, when the user clicks submit, i.e. in A4.3, display the alert confirmation and then use JQuery to send an e-mail. **You can use any JQuery plugin available online to implement this functionality – you are not expected to code the plugin yourself.** Include screenshots of the output (as PNG images), and include the required code in a JavaScript file called `jqEmail.js` – include a reference to this file in the <head> section of the HTML file.

Submissions. Create a folder called `A4`. Put the updated HTML files (`index.html`, `page2.html` and `contact.html`), the new JavaScript file (`uihandler.js`), and if you are attempting the bonus - the JQuery file (`jqEmail.js`), inside the folder named `A4`. Also include the W3C Validation results (`W3C-Validation-index.pdf`, `W3C-Validation-page2.pdf`, and `W3C-Validation-CSS.pdf`), Gitlab screenshot (`A4gitscreenshot.png` or `A4gitscreenshot.jpg`) and the reflective note (`A4-6-Ref-Note.pdf`). Compress this folder to create either `A4.zip` or `A4.rar`. Submit this compressed folder as your assignment on Brightspace.

Note.

- You **must not** simply copy / paste any JavaScript / JQuery code from any websites – this amounts to plagiarism.
- If you are using a JQuery library, use appropriate citation and give credit to the original author/creator. You can find more information about citation here:
<http://dal.ca.libguides.com/c.php?g=257176&p=1718022>
- You are expected to use the wireframe (from Assignment 1) as a reference to help you guide your design of the contact page and functionality as well.
- The main objective of this assignment is to let you apply your knowledge of making your website interactive by including JavaScript (and optionally, JQuery).

Assignment 4: Marking rubric.

	Exceptional (80-100%)	Acceptable (70-79%)	Substandard (50-69%)	Unacceptable (<50%)
"Contact" web page (15 marks)	Includes a contact web page; design of the page (elements, structure, etc.) is consistent with other pages of the website. The web page includes a contact form as specified. Understanding of all concepts is clearly demonstrated.	Includes a contact web page; design of the page (elements, structure, etc.) is consistent with other pages of the website. The web page includes a contact form as specified. Understanding of concepts is clearly demonstrated.	Includes a contact web page; design of the page (elements, structure, etc.) is moderately consistent with other pages of the website. The web page includes a contact form. Understanding of concepts is fairly well demonstrated.	Includes a contact web page; design of the page (elements, structure, etc.) is inconsistent with other pages of the website. The web page includes a contact form with some missing elements. Understanding of concepts is poorly demonstrated.
Action on submit (5 marks)	Alert message is displayed. (5 marks)	--	--	Alert message is not displayed. (0 marks)
JavaScript for handling user action (5 marks)	Includes JavaScript for handling user action in a separate file, as specified. Includes a reference to the file in the page header. (4-5 marks)	Includes JavaScript for handling user action within the page header, but not in a separate file. (3 marks)	Includes JavaScript for handling user action somewhere on the web page, not in the page header or in a separate file; no consistency in structuring of the markup. (2 marks)	Does not include JavaScript for handling user action. (0 marks)
Gitlab (5 marks)	Merges code changes to Gitlab (5 marks).	--	--	Does not merge code changes to Gitlab (0 marks).
W3C Validation (10 marks)	All elements of the style sheet are validated.	Most elements of the style sheet are validated.	Some elements of the style sheet are validated.	Very few elements of the style sheet are validated.
Reflective note (10 marks)	Has an exceptional understanding of the material. Justifies all design decisions. Discusses criteria used in justifications. Shows exceptional use of tone and style. Speaks to the reader with precise, concise, appropriate language and choice of words. Always uses standard conventions. The document looks professional.	Has a good understanding of the material. Justifies most design decisions. Shows competent use of tone and style. Makes good word choices. Mostly uses standard conventions. The document could use some editing.	Has a fair understanding of the material. Justifies some design decisions. Shows minimal attention to tone and style. Shows poor usage or ineffective word variation. Does not consistently use standard conventions. The document requires significant editing.	Has a poor understanding of the material. Little or no justification provided. Shows little or no understanding of appropriate tone. Uses inappropriate language and word choice. Standard conventions are flouted. Document is unreadable.
Bonus (10% of the grade obtained)	Implements all the bonus functionality, and demonstrates its working. Includes the code in a separate file, and includes a reference for this file in the page header.	--	--	--