



Illustration by: [Michael Coghlan](#)  

CSCI 1170: ASSIGNMENT 3

Due date: **March 12**

Due time: 11:30pm Halifax time

Note: *This is an individual assignment. Please read the instructions & expectations carefully.*

EXPECTATIONS: WHAT'S OKAY & WHAT'S NOT

This is an **individual assignment**.

- Work on it by yourself.
- Help each other in the class and/or in your groups – **do not share solutions**.
 - Restrict your help to **conceptual discussions only**.
- **If you receive help**, include a citation in your code AND in readme.md in your submission folder with the following information:
 - **Help received from:** person, URL of website, etc.
 - **Date help received:** DD-MMM-YYYY
 - **Nature of help received:** one-two line description of the nature of the help received.

Give credit where credit is due.

This assignment tests your individual learning.

- It **will be tested for plagiarism, inappropriate collaboration and violation of academic integrity principles**.

Start your work early and budget your time.

- It helps you work on your assignments in a healthy manner.

If you have any questions or concerns, please email raghav@cs.dal.ca – at least 48 hours BEFORE the deadline

EXPECTATIONS: WHAT'S OKAY & WHAT'S NOT (PAGE 2)

How can your TAs help?

- Remember, this is an assignment.
 - We are assessing how you can apply what you have learned in the context that is given in the assignment.
- Your TAs can guide you in your work, but...
 - They will not give you the answer.
 - They will not be able to review your work and tell you whether it is correct or not.
 - They will not be able to review your work in the last minute, i.e., a few minutes or hours before the deadline – remember that they are students taking courses too.
 - **They cannot give you extensions** – if you want an extension for any reason, you must contact Raghav (raghav@cs.dal.ca).

OVERVIEW OF THE ASSIGNMENT 3 (A3)

A3 requires you to continue working with the single page website that you created in A1/A2. You're required to make this website **responsive** and implement **dark mode**.

Use the **news** website from A2 and make it responsive as specified in the next few pages in this document.

This web page must:

- Follow styling guidelines and basic design principles
- Use **valid** CSS (you can use the CSS validator to verify: <https://jigsaw.w3.org/css-validator/>)
- Style structural HTML elements such as headings, lists, images, etc. appropriately
- Style and align container elements appropriately (as specified)
- **Note:** *this assignment must be submitted both on **Brightspace** AND **Mimir**.*

A3: DETAILED REQUIREMENTS (PAGE 1)

1. Use the HTML-only news website (single page website) that you created in A2.
 - Create a new folder named **A3**
 - Copy your files from A2 into A3.
 - In the **css** folder, include this CSS resets file (**normalize.css**):
<https://necolas.github.io/normalize.css/>
 - *Include a citation to normalize.css in both readme.md and the HTML file, please.*
 - Create a new folder named **js** inside A3 and in this, create a file named **scripts.js**
 - Create a new folder named **files** inside A3.
 - You can make changes to HTML as needed to add layout elements.
 - **Only make changes to CSS i.e., to main.css** – Do not add any more stylesheets other than **normalize.css** and **main.css**

A3: DETAILED REQUIREMENTS (PAGE 2)

2. Create a Word document named A3-wireframes.docx (submit the PDF of this file as described below).

- Draw 2 (TWO) x wireframes (you can either draw in Word or draw on paper and scan it or use a tool for wireframing – *if you do, include a citation for the tool you use*):
 - a) **Smartphone/mobile view** (until 840px)
 - b) **Tablet view** (between 840px and 1200px)
- **Important --** These two wireframes **MUST** have different visual elements, i.e., mobile and tablet view CANNOT be the same as each other, and they CANNOT be the same as the desktop view that you have implemented in A2. (see next page for details)
- These wireframes must be annotated as the examples discussed in class.
 - There are a couple samples of *how* annotated wireframes look along with the assignment files.
 - You are not required to create pages that look like samples these – **these are only samples to show you *how* to annotate wireframes.**
- Save this Word file as a PDF (**A3-wireframes.pdf**) – include ONLY this PDF in your submission inside the folder named **files**.

A3: DETAILED REQUIREMENTS (PAGE 3)

2. (Cont'd) Information on wireframes.

- For your wireframes, think about how your web page's visual elements (i.e., what you see on the web page) will appear on the phone and on the tablet.
- Things to consider:
 - What elements will appear full screen, and in what view
 - What elements will occupy half/quarter width, and in what view
 - How will your text content change in appearance in the mobile and tablet views, as compared to your desktop view
 - Will elements move around, i.e., change order something like what you can do in Flexbox?
 - Etc.
 - *(These are only a few examples to help you get started. Feel free to consider more ways to make your pages responsive.)*

A3: DETAILED REQUIREMENTS (PAGE 4)

3. Styling for responsiveness

- Update your CSS file (**main.css**) to implement responsive behaviour. Use the breakpoints for media queries based on values provided in requirement #1 (page 6).
- You are welcome to use Flexbox or CSS Grids to implement these responsive features.

4. Dark mode/light mode using JS and styles

- Implement styles that will help you implement a **dark mode** option in your website.
- Create a button using the <button> element in your HTML with ID set to **btn-dark-light-mode**. This is the only new HTML element you can add in the <body> element.
- When this button is clicked, the user must be able to toggle between dark mode and light mode, i.e., change from dark to light mode and vice-versa.
- Options to apply dark mode styles:
 - a) Set styles in JS using the style property (discussed in class)
 - b) Set styles in JS using adding/removing classes from the DOM nodes (not yet discussed in class - if you know how to do this, please go ahead and use it)
- Include a **citation** for ALL use of JS, i.e., include links to tutorials, code, etc. that you may have used to learn concepts for implementation.

A3: DETAILED REQUIREMENTS (PAGE 5)

5. Organize your code:

- Make sure that you organize your code well.
- Your code must be readable and properly indented.
- Use comments appropriately.
 - Do not use comments for each line of the code.
 - Use comments to describe parts of your web page and what each part does.
 - If you have learned any concept from content other than those provided in the course, include a citation in **both** the comments in the code and in the readme.md file that is in your submission.

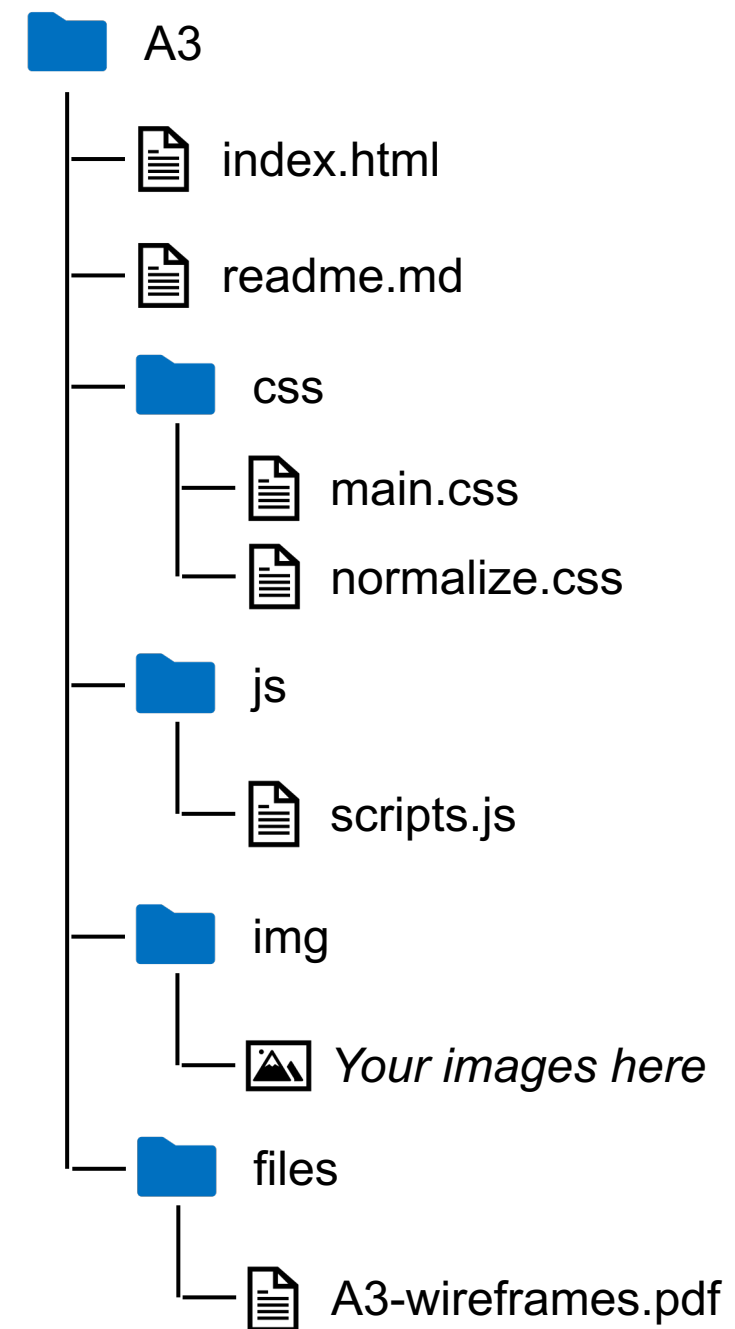
6. You MUST NOT use the following to make your websites responsive:

- CSS frameworks (e.g., Bootstrap, etc.)
- JavaScript frameworks or libraries
- *Why can't we use them?*
 - This is a course on the foundations of web development – it is important to learn the fundamentals of using HTML and CSS well before you can use and customize libraries and frameworks.
 - *This is why you must implement all features / aspects of the website from scratch as specified.*
- *What are frameworks and libraries?*
 - These are structures that are implemented using either CSS or JavaScript for use in large-scale web applications/websites.

A3: SUBMISSION

Format your submission as follows:

1. Create a folder named **A3**
2. Organize A3 as shown in the figure on the right →
3. Include the following details about your group in readme.md:
 - Assignment 3
 - Your full name, B00 number & your email address
 - Citations to material studied / learned outside class and textbook and/or help received
4. Compress the folder (**in .zip format only**).
 - Submit **A3.zip**
 - **If you submit in any format other than .zip, the assignment will not be graded. Sorry.**
5. Submit this in the submission folder (.zip) **on Brightspace AND on Mimir.**



A3: SUBMISSION POLICY

Please note the submission policy:

1. Submit what you have completed by the deadline: **March 12** (11:30pm Halifax time).
 - Note that this deadline is changed from what is given in the syllabus, to accommodate for the changed deadline for A2.
2. You must submit in the assignment in the **submission module on Brightspace** AND in the **submission folder on Mimir**.
3. No extensions will be provided.
 - Please submit what you complete by the deadline.
4. Email submissions or submissions through Teams will not be accepted.

A3: MARKING (PAGE 1)

This assignment will be marked with letter grades as per Dalhousie's letter grading scheme.

- Auto-graded component (AC): 50% (described on this page) & TA-graded component (TC): 50%

| Expectation | Meets expectations (A+ / 5 points on Mimir) | Does not meet expectation yet (F / 0 points on Mimir) |
|--|---|---|
| AC-1: Retains all HTML and CSS from A1 and A2, i.e., passes all previous test-cases | A+ : included in the submission as expected (Auto-graded by Mimir) | F : Code changed (Auto-graded by Mimir) |
| AC-2: Web page is responsive (mobile view AND tablet view) | A+ : included in the submission as expected (Auto-graded by Mimir) | F : Web page not responsive as specified (Auto-graded by Mimir) |
| AC-3: Dark and light mode button implemented with ID specified, and event listening configured | A+ : included in the submission as expected (Auto-graded by Mimir) | F : Dark/light mode button not included, and/or ID is incorrect and/or other button element used (Auto-graded by Mimir) |
| AC-4: CSS resets (normalize.css) is included along with main.css. No other stylesheets included. | A+ : External stylesheets correctly linked, and styles applied (Auto-graded by Mimir) | F : External stylesheet links not properly implemented (Auto-graded by Mimir) |
| AC-5: External JS file is included for dark/light mode | A+ : included in the submission as expected (Auto-graded by Mimir) | F : JS file not included (Auto-graded by Mimir) |
| AC-6: HTML and CSS are valid | A+ : HTML and CSS are valid (Auto-graded by Mimir) | F : HTML and CSS are not valid (Auto-graded by Mimir) |
| AC-7: Follow academic integrity rules | N/A | Report to AIO : possible plagiarized elements in web page; attempts of copying from websites or from each other in the class (Auto-graded by Mimir) |

A3: MARKING (PAGE 2)

This assignment will be marked with letter grades as per Dalhousie's letter grading scheme.

- Auto-graded component (AC): 50% & TA-graded component (TC): 50% (described on this page)

| Expectation | Exceeds expectations (A range) | Demonstrates clarity in concepts (B range) | Meets expectations (C range) | Does not meet expectation yet (F) |
|---|--|---|--|---|
| TC-1: Include wireframes for mobile and tablet layouts (layout & design) | A+ : Demonstrates excellent understanding of web page creation, layout and design principles. | B : Demonstrates good understanding of web page creation and design. | C : Includes some understanding of web page creation and design. | F : work does not meet expectations yet |
| TC-2: Implement dark mode and allow toggling between light and dark modes | A+ : Button toggles between dark and light mode. | B : Able to toggle between light mode (default) to dark mode, but reverse is not possible. | N/A | F : work does not meet expectations yet |
| TC-3: Make web page responsive with mobile view AND tablet view | A+ : Both mobile and tablet views are available. Demonstrates excellent understanding of responsive layout implementation and visual elements are appropriately resized in smaller views. | B+ : One responsive view implemented very well, but the other is not. Demonstrates good understanding of responsive layout implementation. | C : Attempts made to implement responsive layouts. Layout/visual errors exist in the implementation. Scope for improvement. | F : work does not meet expectations yet |
| TC-4: Make code readable & include comments appropriately | A+ : Code is readable, indented and comments are used as specified. | N/A | N/A | F : work does not meet expectations yet |
| TC-5: Organize files and folder as specified | A+ : Files created, named, and folder organized as specified. | N/A | N/A | F : work does not meet expectations yet |
| TC-6: Include citations and follow academic integrity rules | N/A | N/A | N/A | Report to AIO : if citations are not included 13 |

A3: MARKING (PAGE 3)

This assignment will be marked with letter grades as per Dalhousie's letter grading scheme.

- Auto-graded component (AC): 50%
- TA-graded component (TC): 50%

Overall grade will be computed as follows:

- $AC = 50\%$ (Grade available on Mimir for this assignment)
- $TC = 50\%$ of $(20\% (TC1) + 30\% (TC2) + 30\% (TC3) + 10\% (TC4) + 10\% (TC5))$
- Overall grade for **A3 = AC + TC**