

PROJECT

Purpose. The course project is aimed at helping you conceptualize, design and develop a website, based on a set of requirements. This is a way to test your ability to apply the concepts you have learned in the course, and by yourself, in designing effective websites. This will also help you in being able to develop websites in the workplace, be it for your own personal / research purposes, or for a client.

Grades. The project will be graded out of 100 points. The project is worth 10% of the total course grade.

Software / Code Editors. The project 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.

Project proposal. You are required to select the website that you will create (from the list of entities) by **11:30pm** on ~~Thursday, October 5, 2017~~, **Tuesday, October 10, 2017**. To do so, you will have to submit your choice on Brightspace.

Due date. Project deliverables are due at **11:30pm** on **Tuesday, December 5, 2017**.

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

Late submission policy. **Late project submissions will not be accepted.** Zero marks will be awarded for those who do not submit the project. For detailed submissions policy, please check the course syllabus.

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>

“What do I have to submit?” First, read through the specifications of the websites, and what is required for each web page. Then, read the “Submissions” section, where all the deliverables are described.

“Why can’t I use frameworks such as Bootstrap?” Frameworks such as Bootstrap have responsive design elements built in to them – there will be not much you will have to do. This course is designed to let you apply concepts you have learned to create responsive websites from scratch, so that you are better prepared when using such frameworks in your future work.

“Where do I start?” Begin by reading the project specification, and writing down any ideas you might get as you read. Then, create wireframes for the various web pages. After this, your website development should be straightforward.

“What do I do if I have any other questions?” Please send me an email (raghav@cs.dal.ca). We can set up an appointment and discuss any specific questions / concerns you may have.

You are required to conceptualize, design and develop a website for an entity. This document describes the list of entities you may choose from, and the requirements for the website you will create.

Your submissions must not be the same as your assignment submissions. Doing so will result in loss of points.

List of entities. Choose ONE from the following list of entities. After you have finalized your choice, submit your choice on Brightspace.

- Cinema company – along the lines of CinePlex (name should be *TigerPlex* or something else appropriate)
- Book publisher (name of the publisher should be *Tiger Publishing Company*)
- Tourism company (name should be *Tiger Tours* or something else appropriate)
- Healthcare service provider (name should be *myHealth*)
- Arts or arts related (name should be *inspirations* or something else appropriate)

Website specifications. Develop the website for your chosen entity based on the content and style specification described below.

The website must have **at least** the following web pages (you are welcome to add more pages if you prefer to add more interactivity or information):

- Homepage ([index.html](#))
- About the entity ([about.html](#))
- Services offered ([services.html](#)) or Products ([products.html](#))
- Contact page ([contact.html](#))

Use HTML5 web page layouts, i.e. including <header>, <nav>, <articles>, <section>, <aside> and <footer>, and organize them however appropriate for the entity you have chosen and the web pages that you have considered. Also, use relative paths instead of absolute paths, wherever applicable.

Note. Your website must follow responsive design guidelines, and adapt for viewing on computers, phones and tablets.

1. Content

1.1 Homepage:

- Must have an image slider, where each image is a highlighted news item (or product, or anything else that might be relevant for the entity you have chosen).
- Organize content into <section>s, <article>s (if you need to) and <aside>s.
- Quick links: Must have links to resources on the website (e.g. documents, other web pages, etc.) For an example, check out the links available on the right-hand side of the Dalhousie Computer Science website (www.dal.ca/cs). *This section must not be named "quick links".*
- Optional content – a single paragraph summarizing what the entity does. This should be a brief summary of what is available on the About page.
- Any other entity-specific content you may feel to be relevant on the homepage.

1.2 About the entity:

- This page must be descriptive. Remember that you are creating a professional website for an entity. Make up fictitious content about that entity and write here. **Do not copy content from any other website.**
- Organize content on this page into <section>s and <aside>s, and use other organizational elements where necessary.
- You may use images or links to documents (PDF), if required.
- If you have multiple sections on the page, each heading must have a link in the <aside>, i.e. an HTML bookmark that uses the id attribute for creating links.
- You may create additional HTML pages linked to the About page, if necessary.

1.3 Services offered or Products:

- This page must include details about services offered or products sold by the entity you have chosen.
- You are required to include any menus or product specifications or details about any art services offered in this page.
- **Bonus points:** You may include interactive elements while displaying product specifications, and / or include interactive comparison pages. *Note that this requirement is not mandatory, but makes your submission eligible for bonus points (see Section 6, Bonus Functionality).*

1.4 Contact:

- This page must include a contact form.
- The contact form must include content validation, i.e. all fields must be filled by the user, and email addresses must be in the format **@*.** and phone numbers must be in the format *XXX-YYY-ZZZZ*.
- Include a paragraph text with a fictitious email address of the company and other contact details, e.g. phone (for phone numbers, include *1-800-XXX-YYYY*, or a similar combination of alpha-numeric characters).
- You may also include social media links here (optional).
- You must study about JQuery or PHP by yourselves (*self-study*) and enable sending emails to a specified email address. **Note: do not copy/paste code into your project – this amounts to plagiarism.** Use a library or an external service that allows you to send emails using web forms, and cite the source using an appropriate citation format (APA, IEEE or ACM) in a file named *README.txt*.

1.5 Mouse right-click disabled:

- In all your pages, mouse right button click must be disabled.
- If the user clicks the right mouse button in any page of your website, an alert message must be displayed that indicates that right click has been disabled.

1.6 Navigation bar:

- In all your web pages, the navigation links must be at a consistent location and must have consistent styles (i.e. horizontal, vertical, etc.).
- This should include a link to all other pages on the website, in addition to any other links you may deem appropriate.

2. Design

Make sure that the designs for all pages other than the homepage are consistent. The homepage may have a different design. This distinction is observed on various websites – mainly because the homepage is often a summary page with links to other features / details available on other pages of the website.

Think about who the users of the website will be. In a document named [Users.pdf](#), 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.)

Create a blueprint of your website – each web page must have a wireframe. Wireframes must include minimal details, e.g. section names, navigation link names, etc.

You may use either tools like PowerPoint, Illustrator, Photoshop or pencil+paper to create the wireframes. Include all wireframes in a PDF document called [Wireframes.pdf](#), and include this as part of your submissions. If you use any tools to create your wireframes, indicate it in your submission.

Justify your design with respect to Quesenberry's 5 E's of design. Focus on each of the "E"s and discuss as to how these principles have been addressed in the design. Justify using specific examples from your design, i.e. using design elements to justify how a specific design guideline was applied in your design. This must be provided in a document named [DesignRationale.pdf](#). This must **be at least 1 page in length and at most 2 pages**.

3. Styles

Create a colour and style scheme for your website. This will include colours and styles for elements such as headings, paragraph text, navigation links, page header / footer, and other content sections.

Include all style definitions in a file called [myStyles.css](#)

You must choose and define a font-family, identify appropriate font-sizes for different types of content, and define appropriate spacing between various elements or grouped elements. This is in addition to any other style definitions that may be necessary for responsive design (**you may include additional CSS files for this purpose if necessary**), and others that you may deem appropriate for your website design.

In a document named [DesignElements.pdf](#), summarize and justify the style elements that you have used. Focus on question such as why have you preferred to style in a particular way, how does it link back to the design rationale you provided in [DesignRationale.pdf](#) (in item #2 above), etc. **This must be at least 1 page in length and at most 2 pages**.

4. Scripts

You will be required to use JavaScript for the image slider functionality, and you may use it to enhance content validation and processing in the contact form. You will also need JavaScript for disabling right button click on web pages.

Include these and any other scripts you may need in a file called [myScripts.js](#)

Note. You may include additional JavaScript files for the purpose of responsive design, if necessary.

5. Validation

All your web pages and CSS must be validated.

6. Bonus Functionality

After you have completed the expected functionality specified in the previous sections, you are encouraged to add additional functionality to your website. These features should be used to make the website more interactive. Examples of such frameworks include Google Web Toolkit, JQuery, etc.

Note

You must not use frameworks to make your websites responsive. Include a separate file in your submission called [Frameworks.txt](#) and cite the frameworks that you have used (if any). Use one of APA, IEEE or ACM citation format for citing websites of the frameworks.

Note. *First ensure that the website is as per the specifications listed in the previous sections. Work on bonus functionality after it meets the requirements.*

Please see next page for deliverables and marking scheme.

Submissions (DELIVERABLES) (will be graded for a total of 100 points)**0. Root folder (2 points for proper organization of all files)**

- Create a folder with the name of the entity you have chosen (e.g. “tigerPublishing” for publishing company). Include all other files (HTML, image, CSS, JavaScript, etc.) inside this folder.

1. GitLab (3 points)

- Your project must be hosted on GitLab (available at <https://git.cs.dal.ca>)
- Ideally, you must create the root folder (item #0 above) on GitLab and commit all your code periodically. Include a screenshot of all your deliverables available in this root folder on GitLab. This must be named as [GitLabRootFolder.jpg](#) or [GitLabRootFolder.png](#)

2. HTML and Image files (30 points, includes grade for responsive web design)

- Name all HTML files appropriately (as defined earlier)
- Include all images in a separate folder called [images](#)

3. CSS and JavaScript (25 points, includes grade for responsive web design)

- Include the style definitions in the CSS file, [myStyles.css](#)
- Include all scripts in the JavaScript file, [myScripts.js](#)
- You may include any additional CSS or JavaScript files, as well.

4. PDF and other documents (40 points)

- Create a separate folder called [files](#) inside the root folder
- Include the following PDF documents inside this folder:
 - Readme document and framework references:
[README.txt](#)
[Frameworks.txt](#)
 - Wireframe of all your web pages: (7 points)
[Wireframes.pdf](#)
 - User characteristics: (8 points)
[Users.pdf](#)
 - Design Rationale: (8 points)
[DesignRationale.pdf](#)
 - Design and style elements: (7 points)
[DesignElements.pdf](#)
 - W3C HTML validation of all your HTML pages: (8 points)
[W3C-index.pdf](#), [W3C-about.pdf](#), [W3C-services.pdf](#) or [W3C-products.pdf](#), [W3C-contact.pdf](#)
 - W3C CSS validation of your CSS style definitions: (2 points)
[W3C-css.pdf](#)

5. Bonus functionality (5% of the overall project grade)

- Include any additional scripts in appropriately named JavaScript files

Compress the root folder [<actual-root-folder-name>.zip](#) (e.g. for smartphone manufacturing company, “myPhone.zip”) and submit this compressed folder on Brightspace.