Term Project

Overview

This course includes a term project that evaluates the student's mastery of the course material in order to create professional web sites and applications.

Students will be evaluated on how well they have mastered the following topics:

- Web languages
- HTML5
- CSS 3
- JavaScript
- TypeScript
- React
- Web page layout and design
- Document Object Model (DOM)
- Website usability
- Project management for web design and development

Deliverable

You will be required to create a comprehensive website consisting of 5-10 content pages using the knowledge you have learned in this course. **Your code should be stored on GitHub (github.com) and publicly available for view. Please refer to the documentation on Getting Started with GitHub to get setup.**

The term project's *default* topic is YOU!

Create a website that includes a portfolio about yourself. You can choose one or more of the following features:

- Include your biography
- Share your interests
- Provide a web-based contact form
- Display your resume
- Include a photo gallery
- Showcase skills you learned in this course

It is expected that you will utilize the *majority* of the material covered in the course to implement your project.

Unless approved by your facilitator you are restricted to the default topic described above. Don't construe this as a requirement, it would be great to have you work on a topic that better suits your interests or could actually fulfill a need or desire you currently

have. If you would like to choose a different topic or direction, just be sure to have your alternative topic approved by your course facilitator before the start of week three.

If you are going to be in the job market in the near future—creating a portfolio about your education makes a lot of sense and is strongly recommended.

In addition, a mid-term review (at the end of Module 3) may also be offered as an optional event in order for students to receive feedback on their project before they finish and submit the assignment.

The following diagram can help you with the planning and implementation of your project:
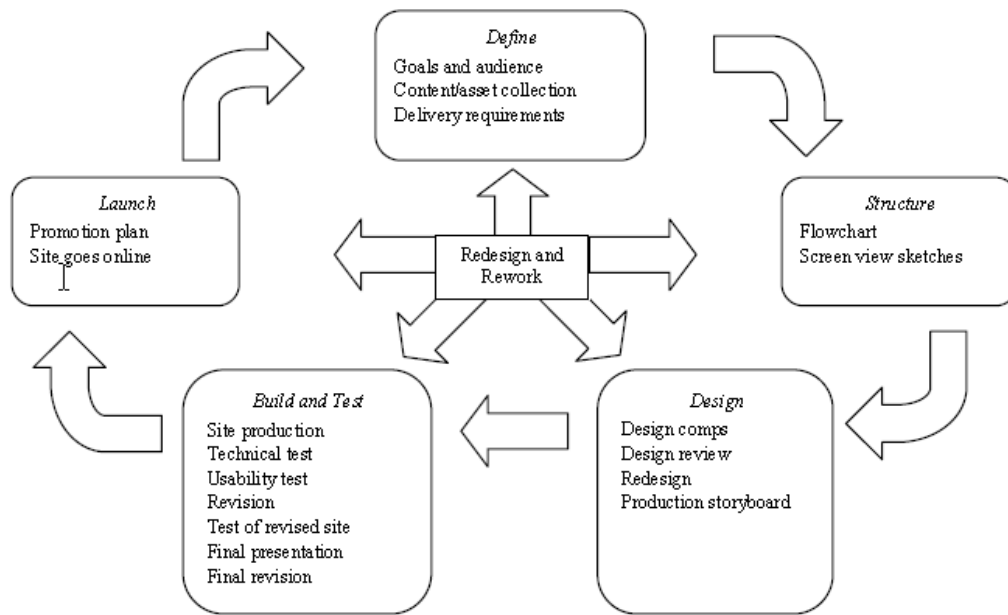
Presentation

You have two options for presentation: via video or live.

- **Live presentations**: Your instructor or facilitator will schedule final presentations in which each student will devote 8–10 minutes presenting their completed project in a live classroom environment. It is nothing to stress over, just show us the great work that you have accomplished!
- **Video presentations**: You can also submit your project as a video walk-through. If so, submit both the link to the video and the link to your codebase on GitHub as your final.

Your instructor and/or facilitator will announce the days and times of these two events.

Option for Extra Credit

You have the opportunity to earn extra credit for this assignment. This extra credit provides for a *maximum of a 10%* adjustment to your final term project score.

To earn extra credit, you will need to incorporate one or more of these technologies into your final submission.

- Adding any HTML5 APIs (Drag and Drop, Canvas, SVG, Web Workers, Geolocation) presented in modules one and two.
- Incorporating TypeScript into your web page or using TypeScript in React instead of JavaScript.
- Connecting to a database or external API to add dynamic functionality to your site. This typically involves being able to submit, retrieve, edit, and delete information from a web form to a database.
- Making your site responsive using CSS Flexbox or CSS Grid Layout (no frameworks).

Resources

Web authoring tools and other software

You may use a text editor and/or integrated development environment. You may also benefit from using image, video, and/or audio editing software. You must also publish your project to the web, so you'll need web hosting space. We recommend Netlify, Azure Static Apps or GitHub pages for your hosting. Please use GitHub to store your code; this makes deployment much easier as well.

Development Resources

- Lecture notes
- Live classroom recordings
- Course textbooks
- Additional web research
- *No group projects or external collaboration is permitted*

File Management

- Your code should be stored on GitHub in a public repo in a folder with a README.md file explaining your project's goal. Submit the link to this project as your final project submission.
- Privacy issues: Your codebase should be publicly accessible on GitHub, but if for some reason you need to keep it private, you can create a private repo.

You will need to give your instructor/facilitator access, so email this person to coordinate access.

Web Hosting

We recommend Netlify, Azure Static Apps or GitHub pages to host your projects. Please use GitHub to store your code; this makes deployment much easier as well.

Evaluation and Grading

A rubric will be used to evaluate this deliverable (see below). Your facilitator will look for certain aspects for evaluation but will also evaluate the project as a whole.

All work that students present must be original content. You may not "take" code from other web sites for which you did not author. This statement applies to extra credit work as well.

Term Project Rubric

Objectives	Quality Criteria that Best Matches the Project			
Design	**No points** No effort was put into design aspects of the site. Plain content is presented.	**1 point** The page design is not entirely appropriate to the content or the intended audience. Very minimal effort put into design.	**2 points** The page design is visually pleasing, although it may not be entirely appropriate to the content or the intended audience	**4 points** The page design is visually pleasing, supports the page content, and is appropriate for the intended audience. Design is exceptional.
Layout	**No points** Tables were used for page layout.	**1 point** The page layout is usable, but it has problems with clarity or placement of elements.	**2 points** The page layout is largely effective, although there may be some occasional problems with clarity or placement of	**4 points** Pages use an effective and uncluttered layout, using appropriate style attributes to enhance the readability and presentation of the text and other content. The layout is liquid, allowing for content to adjust as the browser window or

Text	**No points** Site lacks text.	**1 point** Text on the site has a problem with style, mechanics, or both.	**2 points** Text on the site is readable and reasonably well written.	**4 points** Text on the site is well written and presented effectively, using readable fonts and text design and without major mechanical errors (grammar
Navigation	**No points** No navigation elements present.	**1 point** A visitor can get around the site, but with difficulty. Navigation is not presented as visually appealing.	**2 points** The site is well organized and easy to navigate for the most part, with clear relationships between pages.	**4 points** The site is well organized and easy to navigate; the relationship between pages is clear and it's easy to find an individual page; each page is clearly linked to another; links are appropriate, clearly labeled, and have a definite purpose; page titles are appropriate to content and have a
Images	**No points** No images were used.	**1 point** Several images on the site have problems with either design or presentation.	**2 points** The images are well designed for the most part, although there may be some minor problems with either design or presentation.	**4 points** The images are well designed and add to the presentation of the content, without distortion, excessive dithering, haloes or other negative graphic effects; images include Alt, Height, and Width attributes (may be in
Mechanics	**No points** Not everything on the site works correctly, not displaying correctly in all major	**1 point** NA	**2 points** NA	**4 points** Everything on the site works: there are no missing graphics or broken links; it can be viewed without issues in Firefox and one other major/popular browser such as Chrome, Internet Explorer, Edge, or

HTML	**No points** NA	**1 point** Student shows weak usage and/or understanding of HTML concepts.	**3 points** Student has demonstrated adequate proficiency with HTML concepts.	**6 points** Student has clearly mastered HTML concepts.
CSS	**No points** CSS was not used.	**1 point** Student shows weak usage and/or understanding of CSS concepts.	**3 points** Student has demonstrated adequate proficiency with CSS concepts.	**6 points** Student has clearly mastered CSS concepts.
JavaScript	**No points** JavaScript was not used.	**1 point** Student shows weak usage and/or understanding of JavaScript concepts.	3 points Student has demonstrated adequate proficiency with JavaScript	**6 points** Student has clearly mastered JavaScript concepts.
React	**No points** React was not used.	**1 point** Student shows weak usage and/or understanding of React concepts.	**3 points** Student has demonstrated adequate proficiency with React concepts.	**6 points** Student has clearly mastered React concepts.
DOM	**No points** DOM was not used.	**1 point** Student shows weak usage and/or understanding of DOM concepts.	**3 points** Student has demonstrated adequate proficiency with DOM concepts.	**6 points** Student clearly understands and maximizes the use of DOM.
Validation/ Accessibility	**No points** Design incorporated no aspects concerned with accessibility. Code did not	**1 point** Some accessibility concerns were addressed, but there are some minor issues with code validation.	**3 points** Overall, accessibility concerns were addressed and all code passes validation.	**6 points** Design was distinctly mindful of accessibility concerns. Nearly all content is usable even if images, CSS, and JavaScript are disabled.
Overall Quality	**10 points** Poor	**20 points** Fair	**30 points** Good	**40 Points** Excellent

Extra Credit	**No points** Student did not attempt to add any extra features in the scope of extra credit or the attempt to add extra credit features	**3 points** Student made a good attempt at providing extra features in the scope of extra credit. Value was provided, but the value is not significant and/or	**5 points** Student added extra features in the scope of extra credit that provided significant extra value.	**10 points** Student has fully implemented the use of a server-side language and interaction with a database. The usage is appropriate for the project and there are no major problems with the implementation.