

Spring Break Project 2025

For this project, you will design a photo gallery web site. The web site should have a few different templates. At minimum this should include a thumbnail template and a slide show template.

For the thumbnail template, photos are shown as thumbnails with brief information – perhaps a short description, perhaps the location or date the photo was taken; what is relevant information is for you to decide. For the slide show template, more detail is to be shown, perhaps a title and long description, and perhaps a lot more information about

Design Phase

Read and understand the textbook *Topic 10: Designing Web Pages*.

The first step is to design a **wireframe** model. This will allow you to decide how to layout items. As with any web site, you will need to decide what information needs to be on each page and how to arrange that information so that the page has good visual hierarchy and flow, and intuitive navigation.

The second step is to create a **mockup** and **style guide**. Although the *mockup* can be done by hand, a drawing program would be more flexible and much better to properly see what the page will look like. For this stage, you must choose the font style and formatting for your text and headings, the style of buttons and icons, and colors that provide a pleasant look and good contrast.

The third stage, the **prototype** stage, is when you finally use HTML and CSS, perhaps a small amount of JavaScript. You can use static links for the images and hard code the data into the HTML, or you may find provide stub JavaScript functions might be a more efficient way to prototype. (The latter means that you would not hard code the links in HTML, but rather implement the JavaScript functionality that populates the HTML with image links, and the hard-coding of links is in the JavaScript.

Other areas of design that you should consider at all stages are accessibility and SEO (search engine optimization). Accessibility is covered in both *Topic 10* and *Topic 6: Wider Issues*. How can you design a web page for people with visual or hearing impairment? Will you include keyboard-only navigation? SEO (search engine optimization), covered in *Topic 11: The Semantic Web*. Ensure your site has appropriate meta tags and makes proper use of semantic tags. Does the site need a robots.txt file?

Implementation

The design phase will allow you to exercise most of what you need to know for designing a web site. The final implementation will help you improve your skills with coding in JavaScript.

Unfortunately, this course does not include back-end database implementation, so it is not practical to implement a database that you can query for photo information. In order to implement a photo gallery back-end, I suggest writing JavaScript functions that scan a directory for files to display, and information associated with each file available in a JSON file.