

Assignment #2: Advanced CSS and Javascripts

There are three projects in this assignment. Follow the instructions for each project to complete them. You have been provided with the necessary files to complete these projects.

Some websites that you might find helpful in completing this assignment are:

- (1) <https://getbootstrap.com/> (to download the latest version of Bootstrap)
- (2) <https://www.w3schools.com/bootstrap4/default.asp> (for a tutorial)

Project 1: *Share Your Travel Photos (Bootstrap)*

Overview

Use the **Bootstrap CSS framework** (included with the start files, but you may want to instead download the most recent version) as well as modify `chapter07-project03.css` and `chapter07-project03.html` so it looks similar to that shown in **Figure 1**.

Instructions

1. Examine `chapter07-project03.html` in the browser. You will need to add a fair bit of HTML in accordance with the **Bootstrap documentation**. Since you can use the various **Bootstrap classes**, you will need to write very little CSS (the solution shown in **Figure 1** has just over a dozen rules defined).
2. The first step will be defining the basic structure. **Figure 1** shows that most of the content is contained within a main row (i.e., below the **navbar** and above the **footer**) that is composed of two columns (one 2 wide, the other 10 wide). The **Bootstrap grid classes** (e.g., `col-md-10`) are shown at the top of the figure. One of the columns has a nested row within it that contains the main photo image and the data on the photo.
3. The **footer** contains three columns. One of these contains another nested row.
4. **Figure 1** identifies the other Bootstrap components that are used in this project. You will need to use the **online Bootstrap documentation** for more information on how to use these components.

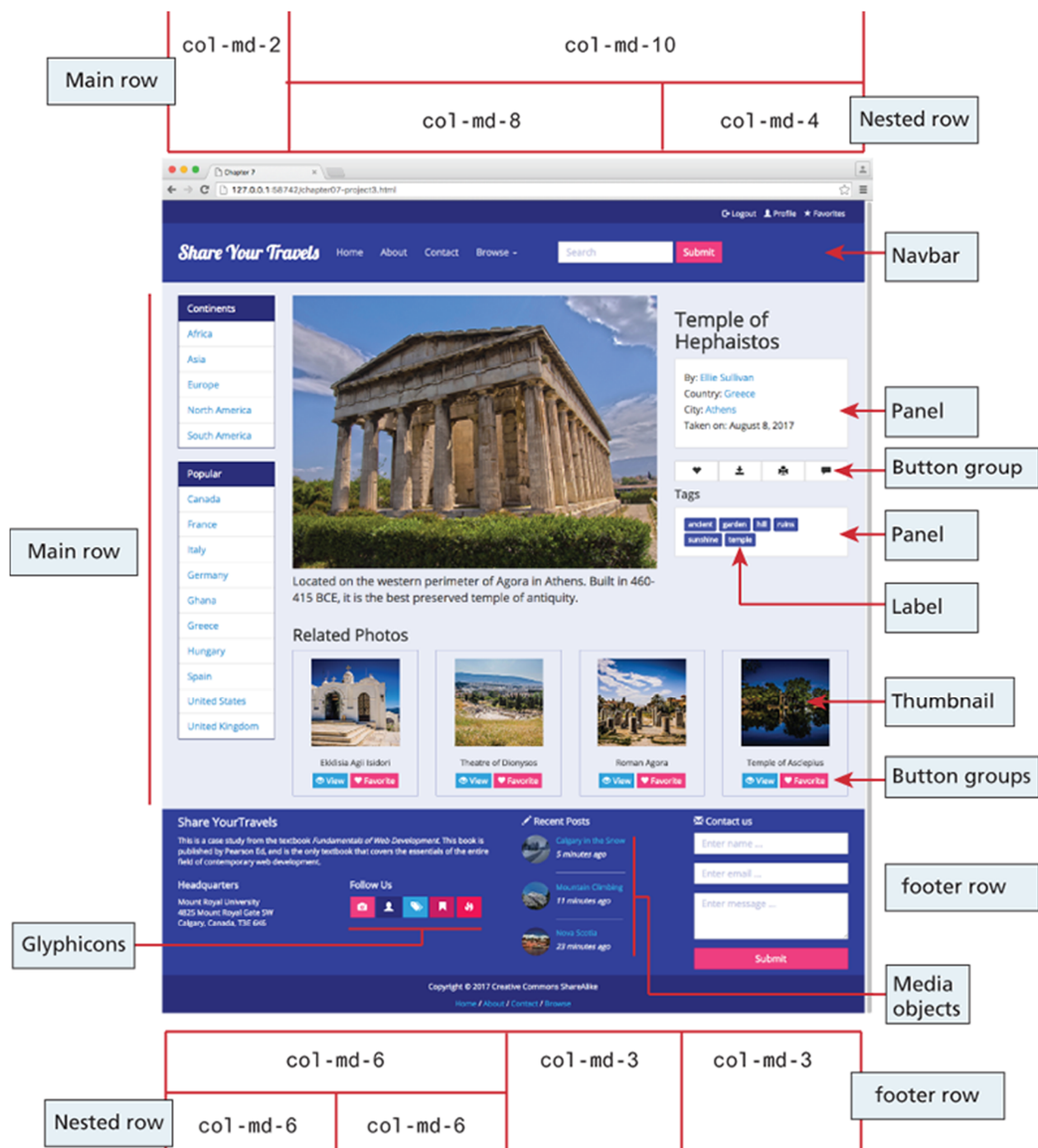


Figure 1 Completed Project

Testing

1. Be sure to test by increasing/decreasing the size of the browser window. If you shrink the browser window sufficiently it should use the **built-in Bootstrap media queries** to adapt nicely to the smaller window size.

Project 2: *Share Your Travel Photos (Javascript 2)*

Overview

You will demonstrate your ability to use **javascript** to update the DOM and to handle events using both event delegation and “regular” event handling.

Instructions

1. Examine [chapter09-project02.html](#). You will **add event handlers** to the thumbnail images and to the larger image. You will **not** need to make any changes to the supplied markup or CSS.
2. All of your event handlers must execute only after the page has loaded.
3. You are going to **add a click event handler** to each of the thumbnail images. When the smaller image is clicked, your code will show the **larger version** of the image in the `` element within the `<figure>` element. This same event handler will also set the `<figcaption>` text of the `<figure>` to the clicked thumbnail image's title attribute. Your event handler must use event delegation (i.e., the click event handler will be attached to the `<div id="thumbnails">` element and not to the individual `` elements).
4. You must also **add event handlers** to the `mouseover` and `mouseout` events of the `<figure>` element. When the user moves the mouse over the larger image, then you will fade the `<figcaption>` element to about 80% opacity (its initial CSS opacity is 0% or transparent/invisible). When the user moves the mouse out of the figure, then fade the `<figcaption>` back to 0% opacity. You can set the opacity of an element in JavaScript by setting its `style.opacity` property.
5. You can **animate** (for instance, a fade is an animation) any CSS setting (such as opacity) in JavaScript by setting its `style.transition` property. For instance, in JavaScript, setting an object's transition style property to “opacity 1s” tells the browser to transition the opacity to its next setting across one second.

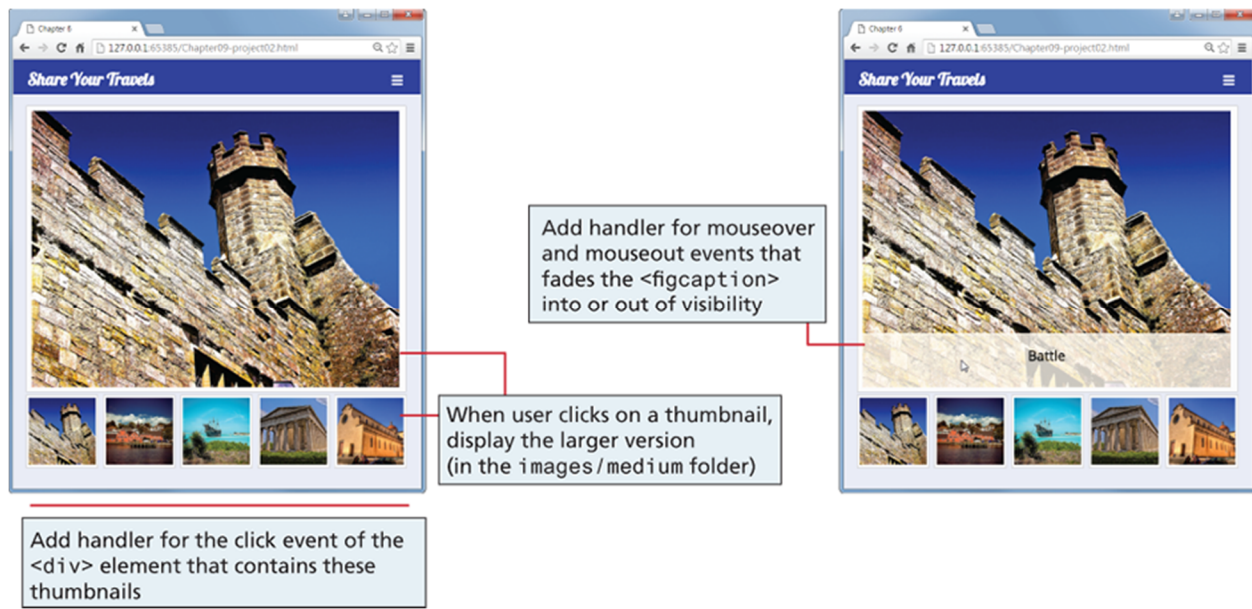


Figure 3 Completed Project 3

Test

1. Verify the page changes the larger image when you click on a thumbnail. Hover the mouse over the large image to verify that the caption fades into visibility, and that it fades to invisibility when the mouse moves out of the image (see **Figure 3**).

Submitting

Put your assignment in a folder named `assign2_yourname` (e.g., `assign2_johnsmith`). Put all resources used by your assignment into this folder and compress them into a `zip` file.

Upload the `assign2_yourname.zip` file to the *Assignment 2 submission* folder under *dropbox* on *elearning*.