

7. Trying resizing the browser; notice how the flex containers continue to shrink in width in order to maintain the four columns. Why four columns? Remember back in step three we set the width to 24%, so the browser is trying to maintain that rule.
8. Add a media query for screens 480 px wide and less. In it, change the card width to 100% and test. Now on a small screen, each card will fill the entire width. Also reduce the height of the header as well as the margin and padding of its heading.
9. Add a media query for tablets between 481 px and 768 px. Change the card width so two cards are displayed on each row.
10. Add a 2 second transition on the opacity property when hovering over or off of the See More span with the *button* class. This will create the illusion of the span fading into (or out of) visibility. Also, add a drop shadow and a saturation filter of about 130% when hovering over any of the card images.

#### Testing

1. View [chapter07-project02.html](#) in the browser. Be sure to test at different sizes to verify the media queries work as expected (see Figure 7.56).

### PROJECT 3: Share Your Travel Photos

**DIFFICULTY LEVEL:** Intermediate

#### 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 7.57.

#### 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 7.57 has just over a dozen rules defined).
2. The first step will be defining the basic structure. Figure 7.57 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 7.57 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.



**HANDS-ON  
EXERCISES**

**LAB 7**  
Project 3

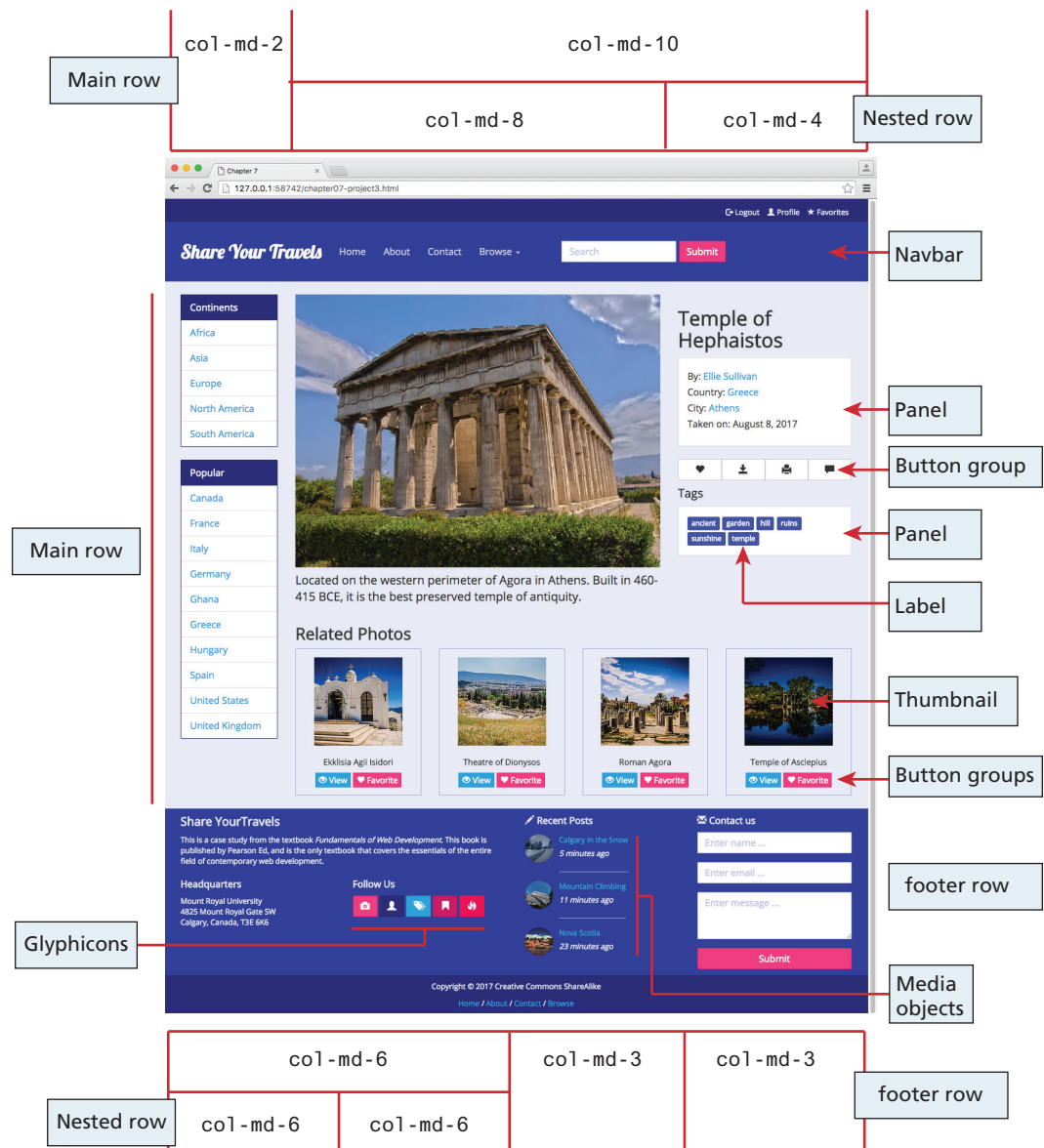


FIGURE 7.57 Completed Project 3

### 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. This will require you to construct the navbars with the appropriate collapse classes.

### 7.9.3 References

1. Luke Wroblewski, “Multi-Device Layout Patterns” [Online]. <http://www.lukew.com/ff/entry.asp?1514>.
2. Pete LePage, “Responsive web design patterns” [online]. <https://developers.google.com/web/fundamentals/design-and-ui/responsive/patterns/?hl=en>
3. <https://www.w3.org/TR/css3-transitions/>
4. <https://www.w3.org/TR/css3-animations/>
5. Susan Robertson, “Creating Style Guides” [Online]. <http://alistapart.com/article/creating-style-guides>.
6. <http://styleguides.io/examples.html>