Test
1. Test the page in the browser. Verify that the calculations work appropriately by changing the values in the **data.js** file.

PROJECT 2: Photo Sharing Site

DIFFICULTY LEVEL: Intermediate

Overview

Demonstrate your ability to create JavaScript objects and arrays as well as work with inner functions. The final project will look similar to that shown in Figure 8.27.
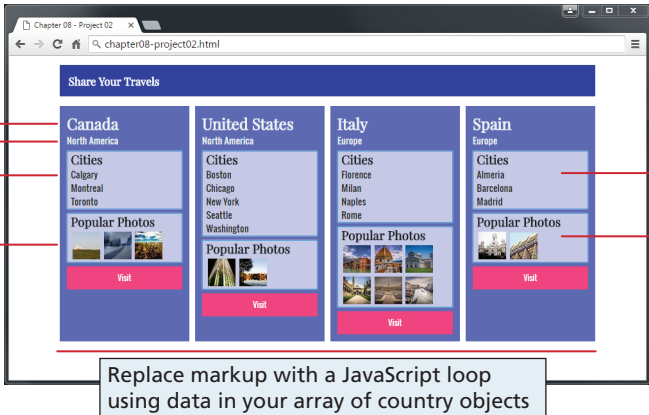
HANDS-ON EXERCISES

Project 8.2

Instructions

1. You have been provided with the HTML file (**chapter08-project02.html**) that includes the markup (as well as images and stylesheet) for the finished version. Preview the file in a browser. You will be replacing the markup for the four country boxes with a JavaScript loop.
2. In the file `data.js`, create an array named `countries` that contains four object literals. Each object literal should contain four properties: `name`, `continent`, `cities`, and `photos`. The `cities` and `photos` properties should be arrays containing the city names and image filenames respectively.
3. In the file `functions.js`, create a function named `outputCountryBox()` that has the signature shown below. This function is going to generate the markup (using `document.write`) for a single country box.

```
function outputCountryBox(name,continent,cities,photos)
```


Create array of four country object literals that contain name, continent, cities, and photos properties

Create an inner function to output cities box

Create an inner function to output photos box

Replace markup with a JavaScript loop using data in your array of country objects

FIGURE 8.27 Completed Project 2

4. Inside the `outputCountryBox()` function, create two inner functions named `outputCities()` and `outputPhotos()`. These two functions will have the responsibility to generate the markup for the cities and photo boxes.

5. Replace the markup for the country boxes with a loop through your array of countries. Within this loop, call your `outputCountryBox()` function, passing it the relevant data from the country objects.

Test

1. Test the page in the browser. Verify the correct data is displayed.

PROJECT 3: CRM Admin

DIFFICULTY LEVEL: Intermediate

Overview

Demonstrate your proficiency with JavaScript objects, constructor functions, and prototypes. The final project will look similar to that shown in Figure 8.28.

HANDS-ON EXERCISES

Project 8.3

Instructions

1. You have been provided with the HTML file (**chapter08-project03.html**) that includes the markup (as well as images and stylesheet) for the finished version. Preview the file in a browser. You will be replacing the markup for the five book "cards" with a JavaScript loop.

2. Create a JavaScript constructor function called `Book()` that has the signature shown below. Use the `this` keyword to save the parameters as object properties.

```
function Book(isbn,title,description,universities) { }
```

3. Create an array of five `Book` objects using your function constructor. Pass in the appropriate data (taken from the markup) for each book as parameters. The university data should be passed as an array of names.

4. Add a function named `outputCard()` as a prototype function to your `Book` function object. This function should generate the markup (using `document.write`) for a single book card. It should reference the book object's data properties via the `this` keyword.

5. Replace the markup for the book cards with an immediately-invoked function expression that loops through your array of `Book` objects and calls the object's `outputCard()` function.

Test

6. Test the page in the browser. Verify the correct data is displayed (including the book title as the cover images `title` attribute).