JavaScript, Sixth Edition

Chapter 12 Solutions

Short Quiz 1

1. What is the first step in using jQuery in a project?

The first step in using jQuery is to link the .js file that contains the library to your HTML document.

1. How does every jQuery statement start?

Every jQuery statement begins with $. The $ symbol specifies that any code that follows should be interpreted using the jQuery library.

1. How do you select elements in jQuery?

To select elements in jQuery, you specify a CSS selector, contained in quotes.

Short Quiz 2

1. What argument do all jQuery animation methods take?

All jQuery animation methods take a value in milliseconds as an argument, allowing you to specify the time frame over which the animation should occur.

1. What is the difference between using the jQuery addClass() method and the show() method to display an element with the display property value set to none?

Using the addClass() method requires that you define a class in your style sheet that sets the display property value to none. When you use the show() method, jQuery changes the property value automatically, without requiring any additional code in your style sheet.

# Review Questions

* + - 1. What language is the jQuery library written in?
         1. CSS
         2. JavaScript
         3. HTML
         4. PHP
      2. What is a difference between jQuery 1.x and jQuery 2.x?
         1. Only jQuery 1.x is written in JavaScript.
         2. Only jQuery 2.x works with modern browsers.
         3. Only jQuery 1.x supports IE 6, 7, and 8.
         4. jQuery 1.x is smaller than jQuery 2.x.
      3. Instead of hosting your own copy of the jQuery library, you can link an HTML document to a copy of the jQuery file \_\_\_\_\_\_\_\_.
         1. on the W3C website
         2. on a CDN
         3. on the WHATWG website
         4. in the style sheet
      4. What is the first step in using jQuery?
         1. Link the .js file that contains the library to your HTML document.
         2. Create a selector.
         3. Enter a method name.
         4. Enter method parameters.
      5. Every jQuery statement begins with which character?
         1. #
         2. $
         3. .
         4. {
      6. The syntax you use to select elements in a jQuery statement is essentially a concise version of which JavaScript method?
         1. getElementById()
         2. getElementsByClassName()
         3. getElementsByTagName()
         4. querySelectorAll()
      7. Which of the following selects all p elements in a document?
         1. $("p")
         2. #("p")
         3. $.("p")
         4. #.("p")
      8. Which jQuery method do you use to add a class name to one or more selected elements?
         1. clone()
         2. addClass()
         3. html()
         4. removeClass()
      9. What action does a jQuery event method perform if it is called with empty parentheses?
         1. It does nothing.
         2. It creates an event listener on the window object.
         3. It removes any matching event listener on the selection.
         4. It fires the indicated event.
      10. Which is not part of a jQuery statement to create a backward-compatible event listener?
          1. The jQuery alias
          2. A selector for the element(s) associated with the event
          3. A method that specifies the event
          4. An if/then construction
      11. Which is the correct syntax to create a function that uses jQuery?
          1. $(function) name() {  
             }
          2. $.function name() {  
             }
          3. function name() {  
             }
          4. $(name()).function {  
             }
      12. Which of the following is a jQuery animation method?
          1. focus()
          2. addClass()
          3. children()
          4. show()
      13. All jQuery animation methods can take a value in \_\_\_\_\_\_\_\_\_\_\_\_ to specify the length of the animation.
          1. minutes
          2. seconds
          3. microseconds
          4. milliseconds
      14. Some jQuery animation methods accept which keywords to set the speed of the animation?
          1. up or down
          2. slow or fast
          3. left or right
          4. true or false
      15. Which is an advantage of using jQuery animation methods rather than coding animations yourself in JavaScript?
          1. Coding the animations yourself might require writing and debugging many lines of JavaScript.
          2. The jQuery animation effects cannot be created with plain JavaScript.
          3. You cannot select certain web page elements without using jQuery.
          4. There is no particular advantage to using one or the other.
      16. What is an alias? What is the role of an alias in jQuery?

The $ that starts every jQuery statement is an alias, which is an alternative name. By default, the $ alias refers to the jQuery() function, which contains all the properties and attributes of the jQuery library. However, the $ alias is a common choice for JavaScript libraries because it is a unique and nonrestricted character. This means that if your app uses more than one library, you may need to replace the default alias for one or more of the libraries with a different alias.

* + - 1. What is the difference between calling a jQuery method with and without parameters?

Many jQuery methods serve dual functions, allowing you to look up a value or set that value. For instance, if you specify the width() attribute for a selection without a value in the parentheses, the statement returns the existing width value of the selection. However, if you specify the width() attribute with a value in the parentheses, such as width("5em"), the statement sets the width value of the selection to the specified value.

* + - 1. Why should you ensure that the script element that links to the jQuery library file comes before any other script element for a .js file that includes jQuery code?

This order ensures that browsers parse the contents of the jQuery library before attempting to interpret the jQuery statements in the other .js file.

* + - 1. What are the components of an event listener using jQuery?

To create an event listener with jQuery, you simply create a statement that starts with the jQuery alias ( $ ), specifies a selector for the element(s) associated with the event, and finishes with a method that specifies an event and the action or actions to take in response to the event.

* + - 1. Why should you avoid including jQuery in a project if you don’t need it?

If your jQuery code could be replicated with roughly the same amount of plain JavaScript, you’re generally better off not using jQuery. This makes your app quicker to load because users don’t need to download the jQuery library.

# Case Projects

## Individual Case Project

In your individual website, revise a function to use jQuery selectors and methods. Identify a function that contains at least three selectors that you can replace with jQuery selectors, and that performs at least one DOM traversal or CSS change that you can replace with a jQuery method. Comment out the code you replace rather than deleting it. Be sure to link to the jQuery library in all HTML documents that link to the .js file you’ve updated. When your revisions are done, test all pages that use the function to ensure they still perform as they did when the function was written in plain JavaScript.

**Grading rubric**: Students should submit an updated version of their individual website in which at least one function incorporates jQuery code. The function should use at least three jQuery selectors and at least one jQuery method for DOM traversal. The original plain JavaScript code should be commented out within the file for comparison.

## Group Case Project

Examine the documentation of jQuery methods and properties at *api.jquery.com*. As a group, pick a jQuery method that would enhance the appearance or function of one or more pages of your group website. As a group, agree on which sections of your code need to be changed to implement this method. Make the changes as a group, and continue to save and test your changes until the feature works as you expect.

**Grading rubric**: Students should submit an updated version of their group website that incorporates a jQuery method, which may be one covered in this chapter or found online at *api.jquery.com*.