JQUERY
FOR BEGINNERS

YOUR GUIDE TO EASILY
LEARN JQUERY
PROGRAMMING IN 7 DAYS

iCodeAcademy

JQuery for Beginners

Your Guide to Easily Learn JQuery Programming In 24 Hours

By iCode Academy

Table of Contents

INTRODUCTION

Welcome to this training for the Kindle…

I want to thank you and congratulate you for downloading the book, "*jQuery for Beginners: Your Guide to Easily Learn jQuery Programming In 24 Hours*".

This book contains proven steps and strategies on how to create programs using jQuery. It tells you about the fundamentals of the programming language as well as the things you have to do in order to come up with working programs.

It explains to you what jQuery is all about, why choosing it over other programming languages is worth it, and what you have to do to get better at writing programs. This book also contains sample codes to help you gain a better understanding of the concepts of jQuery.

Then again, before you begin with jQuery, it is crucial for you to learn about JavaScript first. If you are already familiar with the programming language, you may feel like ignoring it and moving on towards jQuery quickly. But you also have to keep in mind that this can be a risky move because you have to be adept at using JavaScript before you can successfully write codes using jQuery.

In fact, a lot of Web developers make the mistake of skipping JavaScript and moving on to jQuery immediately. While they may have experienced a smooth flowing run at first, they eventually find themselves stuck in the middle. At this point, they no longer know what to do because they did not spend time learning about JavaScript first.

If you do not want to get stuck while in the middle of programming using jQuery, see to it that you pay attention to JavaScript and learn all about it first. In the most basic sense, writing codes using jQuery is practically writing codes using JavaScript, except that you use the library of jQuery.

If you already have a Web page but you want to include some JavaScript codes in it so that it would run better, you can either add codes inline within your script tag or you can make an external file in JavaScript using the .js extension in your file name before loading it through your script tag.

With regard to the syntax of JavaScript, it is pretty clear and basic. Then again, there are still some subtleties that you must expect. As you go on writing codes and programs using this programming language, you will encounter these subtleties.

Oftentimes, there are a variety of ways on how you can do and achieve things. However, the community still insists on certain conventions. The use of semicolons is an example of this. In JavaScript, the use of semicolon at the last part of your line is usually optional. Nevertheless, you have to add a semicolon at the last part of your line at all times if you wish to follow the convention. This is especially the case if you're working with a team or if other people will be taking a close look at your code.

Aside from semicolons, you have to take note of white spaces. In JavaScript, you do not have to worry about using white spaces all the time. In fact, you are allowed to layout your codes in any way you prefer when it comes to white spaces. Each time you write inside braces, see to it that you indent by a tab. Then, you can follow your own standards for the rest of your codes.

With regard to comments, you can include them in your codes when you write programs using JavaScript. As a developer or programmer, you should feel free to insert comments as you see fit. Comments are actually helpful in keeping programmers stay on track. They also serve as reminders or instructions, as well as details that explain the flow or purpose of the program.

It is recommended to use comments in your program to keep it organized and easier to understand. In JavaScript, you can use two syntaxes for your comments. You can choose the one for single line comments or the other one for multiline comments.

Then, there are variables. When it comes to coding, programmers usually aim to save the state of their work. They want to remember what their background currently looks like or the calculations they have made. Just like many other programming languages, JavaScript has variables, which you can use to store data.

In order for you to create a variable, you have to declare it using the keyword var. Then, you have to give it a name and set it according to your preference. You may also declare your variable without having to set a value explicitly. When you do this, your variable would be set to undefined by default. If you see a variable like this in JavaScript, it means that nothing has been set to it.

In JavaScript, as well as other programming languages in general, types have a notion. There are certain types that variables can be, such as strings and numbers. They can also be Boolean, which may only be either true or false. Anyway, when you work with JavaScript, there is not so much there is to worry about types because even if you declare variables with integer values, you can still update them to become string values.

You should not forget about functions. When you are done writing codes, you may want to keep them for future use. There might come a day in the future when you may want or need to use them again. You actually have a couple of options in JavaScript. You can copy your codes when you have to use them or you can create a function.

Good programmers are known to be masters of efficiency. They do not like wasting time rewriting codes or making new programs if they can reuse them. So, if you want to save time and energy, you should probably not choose the first option. It is not ideal to copy your codes. What's more, if you have to make some changes, you will need to modify your codes in all the places where you put them.

This is why it is much more advisable to create functions. When you create functions, you can reuse your codes in different places. If you ever have to make chances, you simply have to modify your codes in a single place. There is no more need for you to look up all the places you have placed your codes into. Functions are straightforward and efficient.

There are actually a lot more other things that you have to study and understand in JavaScript before you move on to jQuery. Nevertheless, you will realize that it is all worth it in the end. jQuery is such an amazing programming language. It can certainly help improve your website as well as enable you to create programs for a variety of purposes.

Thanks again for downloading this book. I hope you enjoy it!

CHAPTER 1: INTRODUCTION TO JQUERY

In this chapter, you will learn what jQuery is, what its advantages over other programming languages are, and how you can use it to create programs that have a variety of purposes and functionalities. This chapter also shows you examples of codes so that you'll have a more concrete idea on what to do when coding.

What Is jQuery?

jQuery is a lightweight and fast JavaScript library with lots of features and is based on the principle of doing more while writing less. A lot of programmers prefer it due to its APIs (application programing interface), which are easy to use, and its capability to make event handling, HTML document manipulation and traversal, animation effects addition, and other functionalities easier to execute.

If you are trying to create a Web page, you may like the fact that jQuery allows you to easily customize the page by adding effects. It is also compatible with most browsers, so you will not have a hard time using it. If you want to develop an application based on Ajax, you will also like the fact that jQuery makes the process easier and faster. A lot of major companies, including IBM, Google, and Microsoft, also use jQuery to develop their applications.

Advantages Of Jquery

jQuery is better than other languages in many ways, but perhaps its most significant advantage is its selectors. These selectors let you traverse DOM trees of HTML document structures more efficiently.

In addition, its prebuilt methods allow you to create effects and animations such as showing, hiding, and sliding elements using just one code line.

jQuery helps you save a lot of time as well as energy through its built-in selectors and effects. By using them, you can do other things and not get stuck on doing just one.

jQuery makes JavaScript tasks simpler and easier to accomplish. It allows you to create interactive Web pages with lots of features by using just a few lines of codes. For example, you can obtain server information and update pages without having the need to refresh.

jQuery is also easy to use. You do not have to be tech savvy to know how to use it. If you have a basic understanding of JavaScript, HTML, and CSS, you can start using jQuery with confidence.

jQuery is compatible with a variety of browsers. So, whether you are using Google Chrome, Mozilla Firefox, Internet Explorer, Opera, or Safari, you can successfully use jQuery. It is also downloadable and available for free, which is an added bonus.

The Basics

The core functionality of jQuery will show you a ton of features. For starters, it lets you manipulate the elements of HTML, transverse all throughout the document, add effects and do AJAX requests, and include event listeners. Then again, before you delve deeper into jQuery, you have to learn about the fundamentals of JavaScript first.

You can include an interactivity feature at the beginning of the website. This kind of interactivity is referred to as ‘behavior’ by programmers.

You have to take note that JavaScript is not like any other programming languages because it functions differently on different browsers. Due to such inconsistency, programmers often turn to jQuery, which is a framework of JavaScript, to smoothen rough spots.

By using this framework, you can save valuable time. After all, the code that you need to use is already available. It has already been included in the framework by the developers who wrote it.

If you want to use jQuery for projects, you have to download it and then save it with your HTML. More often than not, users store JavaScript files in separate folders to prevent confusion with their HTML files.

Ideally, you have to put the JavaScript files beneath the HTML document before you close the body tag. In case you place jQuery in a folder with a jquery.js file name along with the HTML files that you use, you have to write the following:

```
<body>
…
<script src="js/jquery.js"></script>
</body>
```

You have to create app.js because it is where you have to place the code.

```
<body>
…
<script src="js/jquery.js"></script>
<script src="js/app.js"></script>
</body>
```

THE JQUERY FUNCTION

Once you include jQuery in the project that you are doing, you have to learn how to choose elements that feature it.

Keep in mind that jQuery may be passed with a set of arguments such as strings that contain CSS selectors. These selectors are useful for choosing HTML elements for the behavior. So, if you wish to choose a paragraph for a page, you have to write **jQuery (“ p “) ;** in your case app.js or script tag.

Here, p is your CSS selector for choosing the paragraphs you pass in the ‘p’ string of jQuery. If you wish to choose all the elements using class error, you have to write **jQuery (“ .error “) ;** .

Even though you may fully utilize this method each time you have to choose elements of HTML, you have to take note that there are other ways on how you can call it. For instance, you can use the shorthand **$**.

Using the examples given previously, you can use **$ (“ .error “)** and **$ (“ p “)** . Then again, if you want to benefit from speed and convenience, it is more ideal to use $.

THE LEAST SURPRISE PRINCIPLE

Once you learn how to choose elements, you have to know how to assign them their behavior. In jQuery, you will find it easy to do this. All you have to do is use the method you need for the behavior and place it at the end part of the elements. For example, if you wish to hide certain paragraphs using the class **error**, you have to call the method **hide ( )**.

To help you understand this further, you have to consider the following example:

```
< p class = " error " > You cannot see this because it is hidden initially. < /p >
< p > You can see this since it is not hidden like the first one. < /p >
$ ( " p.error " ) .hide ( ) ;
```

It is actually very easy. jQuery is developed with the least surprise principle. Its developers intended for it to function that way. So, if you wish to show hidden elements, you have to use **show ( )**. If you wish to vary the speed such as passing in some milliseconds on the speed of the animation of the string and using slow or fast, you can also rely on jQuery.

For example, you want to display an error message in a slow manner after hiding it at first. To make this possible, you have to write the following codes:

```
< p class = "error" > You cannot see this at first because it is hidden, but it is revealed eventually. < /p >
< p > You can see this because it is not hidden. < /p >
$ ( " p.error " ) .hide ( ) ;
$ ( " p.error " ) .show ( " slow " ) ;
```

There you go. You now have effects on your website.

How about if you prefer your codes to be DRY, which stands for Don't Repeat Yourself. With jQuery, you can chain the methods together. Still using the example given above, you can modify your codes and write the following instead:

```
$ ( " p.error " ) .hide ( ) .show ( " slow " ) ;
```

You may notice that the lines can sometimes get lengthy, but this is actually a good thing since it helps you get fewer lines of code. In essence, it allows you to do more stuff without using a lot of lines.

GETTING DEEPER INTO JQUERY

It is quite simple to add effects on your program. Aside from effects, you can also do Document Object Model (DOM) transversals. It shows you how browsers represent the HTML in the memory like trees.

```
< html >
< body >
< ul >
< li > Microsoft < /li >
< li > Amazon < /li >
< li > Apple < /li >
< li > Google < /li >
< /ul >
< /body >
< /html >
```

Html is the parent of body while body is the parent of unordered list or ul. Unordered list is the parent of every item on the list (li).

If you wish to access a parent of an element, you have to use the method parent ( ). For example, if you have to hide all the items on the list or you have to add links with texts before your unordered lists, you have to follow these guidelines:

For selecting items on the list, you have to use

```
$ ( " li " ) ;
```

For hiding these items, you have to use

```
$ ( " li " ) .hide ( ) ;
```

For selecting the Document Object Model element or your unordered list, you have to use

```
$ ( " li " ) .hide ( ) .parent ( ) ;
```

You have to be cautious when you chain with transversal methods like parent ( ), next ( ), and prev ( ) because they return new elements instead of go with the original elements.

You can also use the method before ( ) if you have to insert a string into your

DOM prior to the element, unordered list, or parent.

```
$("li").hide().parent().before("<a href='#'>Show Tech Giants</a>");
```

You can use effects for hiding, transversal for selecting parent elements, and manipulation for adding new HTMLs on the fly.

Then, there is the click ( ) method, which is used for listening to click events on links.

```
$("li").hide().parent().before("<a href='#'>Show Tech Giants</a>");
$("a").click();
```

This method takes the argument that is a function. Whenever you want to click, you have to use the following codes:

```
$("li").hide().parent().before("<a href='#'>Show Tech Giants</a>");
$("a").click(function(){
        /** Code to be executed **/
});
```

Once the link gets clicked, the items on the list are shown.

```
$("li").hide().parent().before("<a href='#'>Show Tech Giants</a>");
$("a").click(function(){
        $("li").show();
});
```

You can bind your click listened with other elements in the HTML such as span and div. You can use other elements, not just links.

CHAPTER 2 : GETTING STARTED

This chapter encourages you to get started with the jQuery language. By this time, you already have an adequate knowledge and understanding of what the programming language is all about. Hence, you are ready to learn more about its codes and how to create your own programs. Do not worry because you will be provided with step by step instructions so that you can make sure that you are on the right track.

jQuery Summary

You have learned what jQuery is from the previous chapter. You have also learned that in order for you to grasp it more efficiently, you have to familiarize yourself with JavaScript, which is a programming language that Web browsers understand.

The codes of JavaScript can work with the texts and images on Web pages. For instance, you can hide images, move texts, or change contents after a particular period of time as well as each time visitors do something on the page, such as hover their mouse pointers over links.

Likewise, the codes of JavaScript can make images show up whenever visitors click on a button. They can also make windows show up thirty seconds after visitors go to a particular page. Moreover, these codes can make sure that visitors fill out the online form properly.

JavaScript is actually robust and typically utilized to include dynamic effects and interactivity to Web pages. Then again, it is also a full programming language, which you need to effectively use in order to come up with working programs.

jQuery is simply a JavaScript add-on library. You can imagine jQuery to be a code that was especially created with your interest in mind. Generally, you have to include at least one line of code on the Web page that needs to call a jQuery code. It would then take care of the difficult task of coding with JavaScript as you sit back and relax.

The Events And Effects Of Jquery

With jQuery, you can effortlessly modify appearances, behaviors, and locations of elements on Web pages. You can think of elements to be blocks of text, images, hyperlinks, tables, and headings on Web pages.

With jQuery, you can give image elements and texts on Web pages special effects, such as the following:

- Show. It displays elements on the Web page when they are hidden.
- Hide. It hides the elements on the Web page.
- slideUp. It slides elements upward on the Web page.
- slideDown. It slides elements downward on the Web page.
- fadeOut. It fades out elements on the Web page to make them invisible.
- fadeIn. It fades in the hidden elements on the Web page to make them visible.
- Animate. It animates elements on the Web page on a specific direction.

The effects of jQuery can be used on Web pages. However, it also allows you to take control the moment such effects occur. For instance, you can make elements on the Web page, slide, fade, and animate among other effects when you give the specifications.

You can use the following jQuery events to trigger effects:

- Mouseover. It transpires when your mouse pointer hovers over a particular location on the Web page.
- Load. It transpires when the Web page is done loading.
- Change. When a value of an element, such as text, is changed, you will see an event occur. You will find this useful if you have to make sure that a visitor inputs the right information on the text box.
- Mouseout. It transpires when your mouse pointer gets off a certain location on the Web page.

PlugIns

jQuery features a ton of plugins that you can use to create great effects. These plugins are programs that expand and use jQuery.

Download and Installation

If you want to use jQuery, you have to download and install it on your computer or remote Web server. To obtain a copy, you have to do the following steps:

1. Go to jquery.com. Click on Download jQuery. You can find this button at the right side of the page.

Upon clicking on the download button, you will be taken to http://code.google.com in which you can find the link to the most recent jQuery version. You have to look for the file along with its file number. As much as possible, you have to go for the minimized version so that you can save valuable space.

2. Click on the file link.

You will see a dialog box on your screen. It will ask you if you want to save or open the file. It is up to you which option you will choose. You have to consider the Web browser that you are using. You may not see a dialog box prompting you to save your file, but rather a full page of codes. When this happens, you have to select File and then Save Page As before saving your file.

3. Save your file in the computer directory of your choice.

Of course, you have to see to it that you remember this directory when the time comes that you need to access the file.

Testing Directory Set Up

Once you have acquired a local copy of your file, you can set up the location in which you will create your HTML files. Simply follow these steps to successfully complete the process:

1. Create a folder or directory on the computer and rename it with ‘webtest’. If you are using Mac, you can have the directory on your desktop. If you are using a personal computer or PC, you can place your directory on your C:/ drive.

2. Create a couple of directories within the webtest directory and name them *images* and *js*.

3. Move or copy the file into your js directory.

Calling Jquery From Web Pages

When you are done setting up the directory and saving the file in your directory, you may now create a Web page.

You need to use a text editor or an HTML editor. If you are on a personal computer, you may use Notepad. Simply go to Start, All Programs, Accessories, and then Notepad. If you are on Mac, you may use TextEdit. Simply go to Applications and then TextEdit. See to it that you go to Format and then choose Make Plain Text when you use TextEdit.

When you are ready to make your HTML page as well as your lines of code for connecting your page to the library of jQuery, you have to follow the following steps. Keep in mind that it is crucial to correctly insert your code into the Web page. If there is even a single incorrect character, jQuery will not work for you. In order for you to be able to create a Web page properly, you have to follow these steps:

1. Open your HTML editor or text editor.

2. Input this code in your text document:

```
<!DOCTYPE html PUBLIC “-//W3C//DTD XHTML 1.0 Strict//EN”
“http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd”>
<html>
<head>
<title>Sample Web Page</title>
</head>
<body>
<p>This is a sample Web page.</p>
</body>
</html>
```

3. Save your file as test.html in your webtest directory. Whatever editor you are using, see to it that you save the files using a .html extension instead of .txt. Take note that you still have to add your line of code for connecting the library to your page.

4. After the title of your HTML code, you have to add this:

```
<script type=”text/javascript” src=”js/jquery-1.4.min.js”></script>
```

Keep in mind that your filename has to match the file name of the file that you just got from the jQuery website. The code library is called by this line of code. After you include codes to your Web page, your browser will be able to search for jQuery.

5. Save the test.html file once more.

Saving your file one more time allows it to be saved with the newly added line of code.

Viewing Web Pages

When you are done creating an HTML Web page, you have to check it out on your browser to see how it looks like and functions. You can open the page by following these steps:

1. Choose a Web browser and open it. There are a variety of Web browsers you can use, including Google Chrome, Mozilla Firefox, and Internet Explorer.

2. Go to File and then Open File. You will see a dialog appear on your screen.

3. Go to your webtest directory and choose the file that you made previously.

4. Hit the OK button. You will now be able to see the Web page on your Web browser. However, even if you can already see and access the code, you still cannot use it to add effects on your Web page yet.

CREATE JQUERY CODES

By this time, you already know how to make a Web page using the <script> tag. It includes or calls the library, allowing you to put effects on your Web page.

If you wish to add images to HTML pages, you can follow these steps:

1. Search for a .gif image and then save it in your directory for images. As much as possible, you have to choose an image that is not bigger than 300 x 300 pixels. Once you picked out an image, you have to save it by going to File and then Save File As.

2. Using your text editor, you have to open the HTML file. In this case, that is test.html.

3. Once it is opened, you have to add some codes after it. In this example, you can use the following codes:

```
< p > A sample Web page < /p > :
< img src = “images/homepage.gif” height = “29” width = “29” alt = A Web page image example” >
```

See to it that you change the file name of your image in accordance with the file that you are using. You have to take note of the <img> tag as well. If you will look at it more closely, you will realize that it features bits of codes, which are referred to as attributes. These attributes include width, height, alt, and src.

Every one of these attributes possesses information regarding the image. For instance, src has the location and file name of your image. Width and height have its dimensions in pixels. Alt is simply added text that displays the image if it is hovered over by the mouse or cannot be shown.

When you save the HTML file, remember to leave it open on the text editor. Afterwards, you can add your codes. For instance, you can add codes for displaying data about your image. You can follow these guidelines:

1. You have to open test.html if you have not yet opened it in the text editor.

2. You have to search for the line of code, which is <script>.

3. Beneath this line of code or after the tag </script>, you have to include these codes:

```
< script type = “ text / javascript ” >
$ ( document ).ready ( function ( ) {
// You have to input your actions in this part

} ) ;

< /script >
```

You have to take note that $ (document).ready is the code that calls the function you need to inform your Web browser with regard to the loading time of your Web page. It also prompts you to take action and do something about it.

Seeing the dollar symbol ($) in your code means that such code calls a function to interact with the programming language. Basically, the dollar symbol is a code word standin of jQuery.

If you want to add notes or instructions to your program, you can use the comment section. To write a comment, you have to use two forward slashes. These characters will tell your browser to not mind whatever text follows on that particular line. Comments are typically used to remind the programmer about the functions of the codes or to help other programmers or users by providing instructions or explanations with regard to how the program works.

4. Modify the comment part, which in the previous example is *// You have to input your actions in this part*, and input *alert (jQuery (‘img’).attr (‘alt’)) ;* You may also write it as *alert ($ (‘img’).attr (‘alt’)) ;*

5. You have to save the file. However, it has to be left open in the text editor. You can view it on your Web browser. Take note that whatever line of code you add will tell your browser to open the JavaScript alert box once the Web page becomes ready.

6. You have to modify your alert code so that it will show the image height.

7. Finally, you have to save your file and use your browser to view it. By this time, you will already be able to view the image height on your alert box.

JQUERY AND WEB PAGES

In essence, your Web page has to contain a script tag, which features the library of jQuery as well as a script block of code, which calls functions from the library of jQuery. You may be a little confused when you use JavaScript codes to call functions, but you should not worry. It is much more important to make sense of the way your codes work and what they mean.

< ! doctype > . It is an element that informs your Web browser what HTML version you use on your codes. Keep in mind that you have to put it at the start of your HTML pages at all times.

< html > . It is an element that starts at your HTML pages.

< head > . It is the element that designates the start of your head section. It typically features script elements and titles.

< title> Sample Web Page Title < /title> . It is the line that shows the title of the Web page.

< script src = " js/jquery – 2.5.min.js " > < /script > . It is the line that shows you where the library is located.

< script type = " text/java script " > . It is a tag that informs your Web browser regarding your JavaScript codes.

$ (document).ready (function ( ) { . This jQuery function is represented by the dollar symbol.

< script type = " text/java script " > . It is the script tag that tells your Web browser that it has JavaScript codes.

$ (document).ready (function ( ) { . You already know that the dollar symbol represents a function of jQuery. This function stands by while waiting for the page to completely load. Once that is done, the codes within it get executed immediately.

alert (jQuery ('img').attr ('height')) ; . It is an alert function that opens the pop-up alert box. You will then see a dollar symbol, which calls the attr function of jQuery. It is the function that returns the values of the attributes. As you can see in the given example, the attribute here is 'height'. The attr function is preceded by img. This means that you have to search for every img element

within your HTML codes and then return the value of the first element’s height attribute.

}) ; . It is a punctuation that closes the parenthesis and brace you see on the line $ (document).ready (function ( ) { .

< /script > . It is the tag that closes the script tag as well as ends the block of code in JavaScript.

< /head > . It is the tag that closes the HTML head section.

< body > . It is the tag that starts the body section in which the primary content that consists of HTML codes, images, and texts are found.

< p > Sample Web Page < /p > . It is among the lines of texts you can find on the Web page.

< /body > . It is the tag that ends your content section.

< /html > . It is the tag that ends your HTML page. The elements and texts you use can be enclosed within double or single quotes, although it is most ideal to go for single quotes. You may, however, prefer to use double quotes for your HTML codes.

< img src = “ images/homepage.gif “ height = “29” width “29” alt “ An example of an image “ > . It is the img element that displays images with attributes on your Web page.

Chapter 3 : Accessing the Elements

In this chapter, you will be provided with more examples and explanations so that you can further enhance your knowledge of the jQuery programming language. Here, the elements of jQuery would be discussed in detail so that you can effectively use them in your programs. You will also be given step by step instructions that you can follow if you wish to explore the functionalities of the elements.

UNDERSTANDING THE ELEMENTS

jQuery is ideal to be used if you want to manipulate the elements on your Web page. However, in order for you to be able to use it properly, you have to learn about the elements as well as what functions you can use to manipulate these elements.

With jQuery, you can interact with the elements and manipulate them on your Web page. The elements of HTML make up the pages. They are also denoted by tags that consist of words or letters within angle brackets.

To help you understand the concept of elements further, you have to consider the following examples:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"

"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript"> $(document).ready(function() {
alert(jQuery('img').attr('alt'));
});
</script>
</head>
<body>
<p>This is my test page.</p>
<img src= "images/home.gif" height="28" width="28" alt="This
is a test
image." />
</body>
</html>
```

As you can see in the given example, the codes have eight elements. The common elements you will find in HTML include the following: < html > and < *html* > *;* < *title* > *and* < title > ; < head > and < *head* > *;* < *script* > *and* < script > ; < body > and < *body* > *;* < *p* > *and* < p > ; and < img > .

When it comes to the elements of jQuery, there are certain rules you have to keep in mind with regard to order.

First, elements within other elements are the results of outer elements. Then, outer elements are the parents of inner elements. Finally, individual elements can be parents and children elements.

< html > and < /html >. These elements tell your browser that all the things you see within tags must be regarded as Web pages.

< head > and < /head >. These elements contain information that help you control the way your Web page is shown. They are also responsible for the codes of CSS and JavaScript, and their calls to the other files are placed between the tags.

< title > and < /title >. These elements contain the page title, which is found on the title bar at the topmost part of your browser.

< style > and < /style >. These elements control the behavior and appearance of the elements found on the Web page.

< body > and < /body >. These elements hold the contents of the Web page.

< script > and < /script >. These elements call the code or file within the tags to make JavaScript codes, as well as others, available.

< strong > and < /strong >. These elements boldface the texts found within the tags.

< h1 > and < /h1 >. These elements create the text for the header.

< div > and < /div >. These elements create a container for your contents.

< p > and < /p >. These elements create paragraphs.

< a > and < /a >. These elements create hyperlinks.

< img >. This tag shows an image. However, you have to keep in mind that it does not have an end tag to match. Thus, a slash symbol (/) is used within this tag to denote its end.

< form > and < /form >. These elements create Web forms that send information submitted by the users to another code or page that has the capacity to process it.

< input > and < /input >. These elements create form elements, such as radio buttons, submit buttons, and input boxes. They are also used as child elements within the form tags.

< table > and < *table* >. *These elements create tables. They also create* < *td* > *and* < td > as well as < tr > and < /tr >, which are both sets of child tags.

< br / >. This element inserts line breaks. It also does not have an end tag to match it.

ELEMENT ATTRIBUTE VALUES

In jQuery, you can set acquired values for the elements. One of the features of jQuery that appeals to many programmers is that it allows them to manipulate element attribute values.

Attributes are codes of HTML that control the aspects of elements. To help you understand this concept further, you have to take a look at the following example:

In this example, you will see the <img> element:

```
< img src = “ images/homepage.gif “ height = “ 29 ” width = “ 28 “ alt = “ tiny town “ / >
```

As you can observe in the above given sample code, there are four attributes, namely src, height, width, and alt.

Src refers to the location or URL of the shown image. Height refers to its height displayed in pixels while width refers to its width displayed in pixels. Finally, alt refers to the text shown in lieu of the image.

Then again, there are other attribute values that the <img> element can have. Attribute values are texts that follow the equal sign right after the name. Such values are usually enclosed within double quotes.

You can obtain an attribute value by using the attr ( ) function. This function uses the attribute name on the Web page and provides its value, which can be found after the equal sign.

How about you take a look at the following code?

```
var SourceImage = $ ( ‘img’ ).attr ( ‘src’ ) ;
```

For you to use the method attr( ), you have to call on to the function method in your library. See to it that you call the name of the function in the code. As you can see in the example, the $ function informs the Web browser that it has to use the function as well as specify the element that it needs. Using the $ is a quick way to call jQuery.

In fact, you can rewrite the above given sample code using the following:

```
SourceImage = jQuery ( ‘img ‘ ).attr ( ‘src’ ) ;
```

The above given code will store the src attribute value from the <img> element to the variable SourceImage.

The variable is where you store your values. You can think of it as a typical box that contains whatever you can find at the other side of the equal (=) symbol.

In the above given example, the variable SourceImage is used to store the element found within the <img> tag src attribute. If you want to obtain the value of this src attribute, you can do that using these steps. Afterwards, you have to show it in the alert box after you save it in the variable.

1. Develop a page that contains this code:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong>This is my test page.</strong>
<img src= "images/home.gif" height="28" width="28" alt="This
is a test
image." />
</body>
</html>
```

Make sure that your file name is saved with a .html.

2. Replace your own code with the following:

```
var imageFile = $('img').attr('src');
alert (imageFile);
```

As you can see on the first line, you are instructed to obtain the value of your image element src attribute and then save it in the variable. Next, you are instructed to show the stored value in the alert box.

Feel free to name the variables with whatever you want. Just make sure that these names do not have any special characters or spaces. You have to avoid using numbers as well. You should only use letters. In addition, you have to use meaningful names for your variables as much as possible so that you can remember their purpose.

Next, you have to save your file. Then, you have to open it on your Web browser. When you do that, you will see the alert box that displays the directory as well as the filename of your image.

You may realize that showing the attribute value on the alert box isn’t really beneficial or ideal. Nonetheless, you still have to learn how to obtain such values as well as store them inside variables.

When you name your variables, you have to keep in mind that the JavaScript types have to begin with letters, underscores, or dollar symbols. The names you use can also contain numbers, letters, underscores, and dollar symbols. You have to refrain from using spaces and special characters. Moreover, you have to take note that you are not allowed to make use of reserved words or the words that have specific meanings in jQuery for the names of your variables.

Element Contents

There are elements of HTML that feature text elements on their closing and opening tags. You can manipulate these elements with the use of jQuery. If you want to obtain the content of an element, you have to follow these steps:

1. Develop your Web page and make sure that it contains these codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong>This is my test page.</strong>
<p>This is some text.</p>
</body>
</html>
```

You can copy and paste the codes shown above on your Web or text editor. Then, you have to go to the next step.

2. Replace your own code with these lines:

```
var pContent = $('p').text();
alert (pContent);
```

As you can see, the first line tells you to obtain the content of the element <p> and then save it in your variable, which in this example is pContent.

On the next line, you can see that the code is prompting for the alert box to display whatever value is stored in the said variable, which is pContent.

3. Save the file. Then, you have to open it on the Web browser.

By this time, you should already see the alert box showing you the contents of the element <p>.

Setting The Element Attribute Values

If you wish to modify the image shown on your Web page, you can set the attribute values of your element. Keep in mind that the image shown depends on whatever is stored in the src attribute <img>. When you change your src value, you also change the image shown on your page.

In order for you to change your HTML element attribute values, you have to follow the following instructions:

1. Develop the Web page that contains these codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong>This is my test page.</strong>
<img src="images/cover1.jpg" alt="cover1" />
</body>
</html>
```

2. Save the file. Then, you have to open it on your Web browser.

You have to take note that cover1.jpg, which is shown in the sample code given above, is going to be the image shown on the page.

3. Replace your own code with these codes:

```
$('img').attr({src: 'images/cover2.jpg', alt: 'cover2'});
```

As you can see in the above given code, you have to look for the element <img> and then modify your src attribute so that it becomes images/cover2.jpg. Likewise, your alt attribute has to be cover2. When you are done with that, you can go to the fourth and final step.

4. Save the file. Then, you have to open and view it on your Web browser.

Now, you will see cover2.jpg. It will be shown as the image.

How about if you want to remove the values of your element attributes?

When the time comes that you decide to get rid of these values, you can use the function removeAttr ( ). Say, you want to remove the attribute height from your image tag. You can use the following code:

```
$('img').removeAttr('height');
```

HTML CONTENT CHANGES

By this time, you already know how to copy HTML contents and display them in alert boxes. When you are done copying your content, you may put them inside the other elements on your page.

In order for you to copy such content, you have to follow these instructions:

1. Develop your Web page. See to it that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});

</head>
<body>
<strong>This is the code in the STRONG element.</strong>
<p>This is the code in the P element.
<img src="images/cover1.jpg" alt="cover1" /></p>
</body>
</html>
```

2. Save your file. Then, you have to open and view it on your Web browser.

You have to keep in mind that the texts found within the <p> and elements both contain tags on HTML. These tags italicize some parts of your texts.

3. Replace your own code with these codes:

```
var strongContent = $('strong').html();
var pContent = $('p').html();
```

As you can see, the content within the element is stored in the variable strongContent. Likewise, the content within the element <p> is stored in the variable pContent. Once you have the contents of the elements, you have to set

them.

4. Add the following codes below the lines that you just included:

```
$(‘strong’).html(pContent);
$(‘p’).html(strongContent);
```

As you can see on the first line, the HTML code is stored in the element . Then, the next HTML code is stored in the element <p>.

5. Save the file before opening and viewing it on your Web browser.

You can see that your code, which was initially stored in the element is now stored in the element <p>.

TEXT CONTENT CHANGES

There are times when you would realize that you do not want to use the actual codes in you elements. During these times, you only want to use the texts. Hence, you have to replace your function html ( ) with function text ( ).

Still using the above given example, you can see that the code was swapped. If you wish to merely swap the texts and not the codes, you can use the following:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
var strongContent = $('strong').text();
var pContent = $('p').text();
$('strong').text(pContent);
$('p').text(strongContent);
});
</script>
</head>
<body>
<strong>This is the text in the <em>STRONG</em>
element.</strong>
<p>This is the text in the <em>P</em> element.</p>
</body>
</html>
```

You have to take note that tags can no longer be found. Thus, you cannot see anything italicized. If you want to strip out the elements of HTML, you can use the method text ( ).

Chapter 4 : HTML Elements, Positions, and Attributes

In this chapter, you will learn all about the HTML elements, positions, and attributes. You will also learn about the selectors used in jQuery. You will be given detailed explanations as well as examples on how you can select id's, elements, and classes among others. You will also learn how you can select by order or from HTML forms among others.

jQuery Selectors

By this time, you already know how you can get and set the attributes of elements as well as inside elements of HTML. You have learned how you can set the values in single elements. How about when you see multiple elements that are of similar type? You may have to filter elements or leave some of them out. When this time comes, you can use selectors. jQuery features selectors that you can use for these purposes.

There are selectors that you can use for specific types of elements as well as for choosing elements based on their attributes, CSS classes, orders, and ids. You may even select elements based on children and parents. Once you have chosen the elements that you want or need, you may use functions and manipulate them.

This chapter of this book is especially dedicated to using selectors in jQuery. You will learn how to choose elements that are of a singular type. In addition, you will learn how to filter out elements depending on their id values, order, and CSS classes.

MAKING SELECTIONS

There are times when you fail to realize that you are already using a selector. For example, in the following sample codes, you will see that the alt attributes and the src for the <img> elements have been changed:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
$('img').attr({src: 'images/cover2.jpg', alt: 'cover2'});
});
</script>
</head>
<body>
<strong>This is my test page.</strong>
<img src="images/cover1.jpg" alt="cover1" />
</body>
</html>
```

You can see in the above given example that the code changes the alt attributes and src of the <img> element. You used $ (img) because you have to select an <img> element.

Keep in mind that this same selector can be used with your text ( ) and html ( ) functions in jQuery if you have to change your texts or codes for the elements of your Web page.

See to it that you follow the following instructions:

1. Develop your Web page using the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong>some name</strong>
<p>Some text<p>
<strong>another name</strong>
<p>More text<p>
<strong>another name</strong>
<p>Even more text<p>
<strong>your name</strong>
<p>Last bit of text<p>
</body>
</html>
```

You have to take note that the text found within the elements <p> and does not really matter. You can use whatever text you want to use. Just make sure that you have the right elements in your program.

2. Save your file before opening and viewing it on your Web browser.

Take note of the bold text within the elements.

3. Change your own code. Replace it with the following code instead:

```
var strongContent = 'Fundamentals of jQuery for Beginners' ;
```

As you can see in the code, the variable strongContent holds the text Fundamentals of jQuery for Beginners. Once you obtain the content that you want to put in your elements, you can use your selector to put emphasis on your elements and replace the texts found inside them using the function text ( ).

4. Include the following code beneath the line that you just wrote:

```
$( 'strong' ).text( strongContent ) ;
```

The above given code places your text within the elements of your Web page.

5. Finally, you can save the file and view it on your Web browser.

By this time, your text has already been changed.

SELECTING ELEMENTS

It is possible to select all the elements on a Web page. You can do this by using the asterisk (*) symbol. For instance, if you want to include the id attribute to the elements of your code, you can add the following line:

```
$ ( ‘ * ‘ ).attr( { id : ‘yourNewID’ }) ;
```

Take note that you have to refrain from using the asterisk symbol with certain functions in jQuery. Take a look at the following:

```
$ ( ‘ * ‘ )text( ‘ This is not recommended. ‘ ) ;
```

When the above given line of code is executed, the text of the outermost element is replaced. Since the <html> element is the outermost parent element of the HTML page, you have to use the following code:

```
< html > This is not recommended. < /html >
```

Generally, programmers use the asterisk selector whenever they wish to assign an attribute or CSS style to the elements of a Web page as well as narrow down results.

SELECTING ID'S

The height, width, src, and alt attributes are not the only attributes you will encounter in jQuery. You will also see the id, which you can use for your elements. This attribute features an unusual identifier that can be used with selectors to select specific elements.

Take a look at the following sample codes. They assign an id to a couple of <p> elements in the page:

```
< p id = ‘ sampleTxts ‘ > Sample texts < p >
< p id = ‘ moreTxts ‘ > More texts < p >
```

You can see that the previous element contains the id sampleTxts while the latter element contains the id moreTxts. If you wish to select the latter, you can use the moreTxts id name for your selector.

When it comes to the id attributes, you have to keep in mind that there are certain rules that govern them. See to it that you take note of the following:

Your id has to be unique. Remember that you are only allowed to use your id once on every HTML page.

Your id is only allowed to feature numbers, letters, underscores, periods, hyphens, and colons.

Your id has to start with a letter.

Your id is case sensitive. See to it that your id for your HTML tag matches your id for your selector.

The pound symbol (#) is found at the beginning of your id name. You can use the id ‘youridname’ for your HTML code. However, if you have to use it using a selector, you have to include the pound symbol at the beginning. Hence, the id ‘youridname’ now becomes ‘#youridname’.

See to it that you observe how this symbol is used in the codes. It is generally only used for the <script> section and not for the <p> tag. If you wish to show attributes from elements using id selectors, you have to follow these instructions:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<p id='someTxt'>Some text<p>
<p id='moreTxt'>More text<p>
</body>
</html>
```

2. Change your own code and replace it with the following:

```
alert ($('#moreTxt').text());
```

The above given code would open the alert box that contains texts stored in your selector. This selector is named with moreTxt, which is your id attribute.

3. Save the file. Then, you can open and view it in the Web browser.

You will see that your text in the element <p>, the one with attribute moreTxt, is shown in the alert box.

SELECTING CLASSES

You can use your id for selecting elements. This would let take control of them. However, due to the uniqueness of ids, you need to select the elements using their ids. If you wish to select a particular number of elements on the page, you need to use the same number of elements on it.

For instance, if you need four elements, then you need to use four ids for the code. You also have to set your src attributes to accommodate the four elements on the page. You can use these codes to do that:

```
$('#anid').attr('src') = 'images/newImage.gif';
$('#anotherid').attr('src') = 'images/newImage.gif';
$('#myid').attr('src') = 'images/newImage.gif';
$('#hereisanid').attr('src') = 'images/newImage.gif';
```

In order for you to be able to select the elements using ids, you must not use the pound symbol with the id attributes of the elements.

Every line sets an src attribute for the element <img>. When you use a class, which is a special attribute, you are able to select an element with this attribute using just one line of code. Take a look at the following example:

```
$('.someClass').attr('src') = 'images/newImage.gif';
```

You also have to keep in mind that there are certain rules that you need to follow when it comes to using class attributes. The following are these rules:

At least one element can use the class. However, you can only use your id once for every HTML page you have.

At least one class can be contained in the element. If you wish to allocate several class attributes to your element, you have to use spaces between the class names.

A period has to be placed at the beginning of your class name for your class attribute. For example, you can use 'yourclass' for your HTML code. However, when you use the same class using a selector, make sure that you include a period at the beginning. Hence, it becomes '.yourclass'.

In order for you to be able to modify your text in the and <p> elements using that same class, you have to follow these instructions:

1. Develop your Web page using the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong class="changemytext">some name</strong>
<p class="changemytext">Some text<p>
<strong>another name</strong>
<p>More text<p>
<strong>another name</strong>
<p>Even more text<p>
<strong class="changemytext">your name</strong>
<p class="changemytext">Last bit of text<p>
</body>
</html>
```

As you can see, four elements feature a similar class attribute. In this case, 'changemytext' was used. You have to take note that your class may be used as many times as you wish. At the same time, different kinds of elements are allowed to share classes. If you open and save your file in the Web browser, you will see the very same page you just saw earlier using a previous example.

2. Change your own code and replace it using the following codes:

```
$('.changemytext').text('This is your new text.');
```

As you can see, the code modifies the text within the <p> and elements.

3. Save the file. Then, you can open and view it on your Web browser. You can see that the original text within the <p> and elements have been replaced.

Selecting By The Order

Having several elements on the page that are of the same type gives you an opportunity to select according to order. Say, you want to get the second element on the Web page. You can take advantage of the functions featured in jQuery to select an element based on its position.

When it comes to using the lists of items found in the library of jQuery, you have to remember that the first one is numbered with 0 instead of 1. So, you have to count from 0.

To help you understand this concept further, you have to take a look at the following example. This sample code contains a variety of tags and elements.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<strong>Element, first strong tag</strong>
<p>Element, first p tag<p>
<strong>Element, second strong tag</strong>
<p>Element, second p tag<p>
<strong>Element, third strong tag</strong>
<p>Element, third p tag<p>
<img src="images/cover1.jpg" alt="Element"/>
<strong>Element, fourth strong tag</strong>
<img src="images/cover1.jpg" alt="Element" />
<p>Element, fourth p tag<p>
<img src="images/cover2.jpg" alt="Element" />
</body>
</html>
```

You also have to take note of the order selectors as well as their uses in jQuery.

You can test your code by modifying the line in which you are prompted to input a code. Consider these examples:

: first : It goes for the first element that matches. It returns whatever value the src attribute has for its first <img>.

: last : It goes for the last element that matches. It returns whatever value the src attribute has for its last <img>.

: even : It goes for the even elements, beginning with 0. It modifies the texts of the third and first elements.

: odd : It goes for the odd elements, beginning with 1. It modifies the texts of the fourth and second elements.

Since jQuery element numbering begins at 0, you have to use the 0 index if you want to choose your first element.

: eq (index) : It counts from the beginning until the index value to match specific elements. So, if you wish to go for the fifth element, you have to use the number 4 in your code. You can use this example:

```
$ ( ‘strong : eq ( 4 ) ’ ).text( ‘Your text goes here’ ) ;
```

: gt (index) : It goes for the elements that feature index values that are larger than the index itself. The selected elements are found below the selected elements.

: lt (index) : It goes for the elements that feature index values that are lower than the index itself. The selected elements are found before the selected elements.

SELECTING FROM HTML FORMS

In jQuery, you will find filters that are especially made for element selection in the HTML forms. So, if you want to select these elements, you can use the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<form action="" method="post">
Your name<input type="text" />
<input type="checkbox" />
<input type = "radio" />
<select><option>First Choice</option></select>
<input type="submit" />
</form>
</body>
</html>
```

You have to keep in mind the form element selectors that you need to use in jQuery:

: input : It selects all the form elements, such as <button>, <textarea>, <select>, and <input/>. When used in a code, it displays how many input elements are there in the alert box form. If you want to select more than a single element, you can use the selector to get an array, which composes of several values. You can obtain an array of elements when you select inputs on your page. The keyword length will tell you about the number of elements present in your array.

: text : It selects the elements when the text setting is given to the type attribute.

: radio : It selects the elements whose type attributes have been set to radio.

: checked : It selects the radio buttons and check boxes that have been checked.

: checkbox : It selects the elements whose type attributes have been set to radio.

SELECTING ATTRIBUTES

The elements in jQuery may be selected with the use of their attribute values and attributes. The following are the attribute filters that you would encounter in jQuery:

[attribute] : It selects the elements that have specific attributes.

[attribute = value] : It selects the elements that have specific attributes set to specific values.

[attribute! = value] : It selects the elements that have specific attributes that are not set to specific values.

SELECTING VISIBILITY

Another great thing you can do with jQuery is to show and hide elements. The following are the selectors that you will encounter while writing programs.

: visible : It selects every visible element.

: hidden : It selects every hidden element.

Selecting Children And Parents

Oftentimes, the elements that you have to select are nested within other elements. Take a look at the following code, for instance. In this code, you will see a pair of elements, with both of them having a similar content:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">

$(document).ready(function(){
// Your code goes here.
});
</script>
</head>
<body>
<div id="myfirstdiv">
<strong class="changemytext">some name</strong>
<p class="changemytext">Some text<p>
<strong>another name</strong>
<p>More text<p>
</div>
<div id="myseconddiv">
<strong class="changemytext">some name</strong>
<p class="changemytext">Some text<p>
<strong>another name</strong>
<p>More text<p>
</div>
</body>
</html>
```

You have to keep in mind that the outer elements are actually regarded as the parents while the inner elements are regarded as the children.

In order for you to be able to select the elements according to their children and parents, you have to use the following selectors:

parent > child : It selects the children elements of the parent elements.

: first – child : It selects first children elements.

: last – child : It selects last children elements.

Keep in mind that selectors in jQuery are plenty, and the ones featured in this chapter may not always be available. Nonetheless, once you learned how to use the above discussed selectors, you will be able to do just fine.

CHAPTER 5 : EVENTS MANAGEMENT

By this time, you already know about selecting and setting elements. You have learned about manipulating these elements as the Web pages load. How about if you wish to modify something on the Web page as a user clicks on a link? This action is referred to as an event in jQuery. The other events include clicking buttons, moving locations, and closing Web pages.

In this chapter, you will learn about manipulating elements in HTML using jQuery.

jQuery on Page Loading

If you want something to happen when your page loads on your browser, you have to use the function ready ( ). It informs your browser to execute commands within the parentheses that follow the ready command.

As you can see in the following codes, the function ready ( ) is called in jQuery and the codes within it are executed:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<script src="js/jquery-1.4.min.js"></script>
<script>
$(document).ready(function(){
var myImage= $('img').attr('src');
$('div').text(myImage);
});
</script>
</head>
<body>
<img src= "images/home.gif" height="28" width="28" alt="Little
house">
<div></div>
</body>
</html>
```

You have to use the functions in jQuery to obtain src attributes from <img> elements and show them as texts in elements. In addition, you have to keep in mind that the function ready ( ) has commands that search for <img> elements as well as save src attribute values within variables.

As you can see in the above given example, a selector is used on the following line to find the tag as well as set the text within the element. Such code runs while the page that contains HTML codes gets loaded.

During this time, forms of media, such as images, often still load. However, the moment the HTML codes start to load, the event ready( ) starts to run.

Programmers generally place event codes within the function ready ( ), but you can choose to not use it. You may only use the codes found inside it. Then again, it is still recommended that you ensure for HTML codes to be loaded prior to

executing other codes. You have to put your event codes within the function ready( ) so that you can make sure that all HTML codes are there.

HANDLING EVENTS

As a Web page owner, it is crucial for you to know when your visitors do something on your page, such as hover their mouse cursor over links or click on images. The more actions visitors do on the page, the more dynamic it becomes.

As you know, your Web page elements merely respond to the actions of your visitors. So, whatever a user does on your page has a direct impact on these elements.

When jQuery was not yet developed, users detect events using codes written with JavaScript. However, it takes a lot of time and effort to write these codes. Users need to use so many lines of codes in order for them to achieve their desired output. In addition, they have to consider the fact that different types of Web browser require different codes.

So, if you use JavaScript to write your codes, you have to adjust according to the version of Web browser that you use. For instance, if you are on Internet Explorer, you need to use different codes if you have just been on Safari.

With jQuery, everything is convenient. You do not have to change your codes all the time. You can switch to another Web browser easily and conveniently, without worrying of having to write another set of codes. You can use the same codes over and over, and still obtain the same output.

Also, unlike with JavaScript, there is no need for you to write too many lines of codes. You can get the same results with just one to two lines of code.

This is why a lot of programmers prefer jQuery over any other programming languages. They get to achieve their programming goals in a relatively short period of time without sacrificing good quality and functionality.

DOUBLE – CLICKING AND CLICKING

A lot of Web page owners want to find out when the elements on their Web pages are clicked on by visitors. If you want to make your alert box open while a user clicks on the texts on your Web page, you can follow these instructions:

1. Develop your Web page and make sure that it contains the follow codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div class="clickme">Do something</div>
</body>
</html>
```

You can create a file like this, but see to it that you use the element with the text within the tags and the attribute class = "clickme".

2. Save your file. Then, you can open and view it on your Web browser.

3. Next, you have to click on the text found within the element. You can expect for nothing to happen at this point.

4. Edit your code and replace it with the following codes:

```
$('.clickme').click(function() {
alert('You clicked on something.');
});
```

The selector is also used to attach a click event with a clickme class. When it comes to renaming classes, you can use whatever file name you prefer.

5. Save your file. Then, you can open and view it on your Web browser.

6. When your text is ready, you can go ahead and click on it. You will then see the alert box on your screen. It shows up because of the click event.

Then again, you have to take note of the issues that come with using click events. For instance, if you use them with texts on Web pages, it may not be obvious enough that they can be clicked. Hence, the visitors of the Web page will not click on them simply because they are not aware that they can be clicked.

As a rule of thumb, you have to use click events with images or buttons to make them appear more clickable. You can also use other elements that can function as buttons for the visitors to click.

For example, you can use an image to function as a button. You can incorporate that on your Web page with the use of the event dblclick. It means that the element needs to be clicked twice consecutively or double-clicked in order for the codes to be executed. Here are the instructions for it:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div class="clickme"><img src="images/home.gif"></div>
</body>
</html>
```

2. Save your file. Then, you can open and view it on your Web browser.

3. Next, you have to click on the text found within the element. You can expect for nothing to happen at this point.

4. Change your code and replace it with these codes:

```
$('.clickme').dblclick(function() {
alert('You double-clicked on something.');
});
```

The selector is used to attach the event dblclick to the element that has a clickme class value. This element also has the img element and clickme class.

5. Save your file. Then, you can open and view it on your Web browser. You also have to double-click on the image or click on it two times consecutively.

You will then see the alert box on your screen as a response to you double-clicking on the event.

You can see that your element has a clickme class and is already clickable. When you double-click on the element, the alert box would be opened.

Remember that you are not limited to just using these alert boxes as responses to the events. You can also do a lot of other effects such as making elements fade, move, appear, and disappear. The effects that you use with jQuery may be your response to the events.

GIVING FOCUS TO ELEMENTS

The elements on Web pages obtain focus each time you click on it using your mouse. They do the same thing when you press your tab key. The following are the steps for giving focus to the elements of a Web page:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
First Name: <input type="text" id="textbox1" />

<br />
Last Name: <input type="text" id="textbox2" />
</body>
</html>
```

2. Save your file. Then, you can open and view it on your Web browser. You have to use your mouse to click on the text boxes. When you click on the text boxes, see to it that you observe the cursor. As you click, it becomes your focus at the moment.

3. Hit tab on the keyboard. You have to do this a few times so that you can see the change in the focus.

4. Change your code and replace it with the following:

```
$('#textbox2').focus(function() {
alert('textbox2 has focus');
});
```

5. Save your file. Then, you have to reload it on your Web browser and click on the bottom part of your text box.

You will then see the alert box show up on your screen. This happens as it responds to your focus event. You may also hit tab on the keyboard if you wish to focus on the text box. Keep in mind that there are a variety of selectors that you can use.

Detecting Keyboard Events

You can also detect which keys on the keyboard are pressed by the visitors of your website. You can use these events and attach them on your website. They will inform you of the keyboard activities of your Web page visitors:

keypress : It is when the key gets pressed and then released.

keyup : It is when the key gets released.

keydown : It is when the key gets pressed.

You have to take note that the event keydown occurs prior to the event keyup. Thus, if a visitor presses down one key and does not realize doing so, the event keydown finally occurs. On the other hand, if a visitor hits one key and then releases it, the event keypress occurs.

Keep in mind that each and every one of the keys on your keyboard is actually associated with a particular numeric value. A, for example, is associated with 65 while B is associated with 66. The last letter Z is associated with the number 90. The numbers associated with the letters are referred to as ASCII values.

Once you find out about these values, it would be easier for you to find out which letter keys your visitors press on their keyboards. If you want to find out if a visitor presses and then releases a certain key, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
Type the letter Z: <input type="text" id="textbox1" />
</body>
</html>
```

2. Save your file.

3. Change your code and replace it with the following codes:

```
$('input').keypress(function (e) {
if (e.which == 90) alert ('Z was typed.')
});
```

As you can see, the code that features the *if statement* and the ASCII value is saved as the argument *e*. You can tell that this code pertains to the opening of the alert box once the ASCII value reaches a 90 equivalent. As for the argument e, it tells you about the key that is pressed.

You have to give special attention to the argument *e*. Every event has its event object passed onto the function. This tells you which one of the events has occurred.

3. Save the file. Then, you can open and view it on your Web browser. You have to type letters in your input box, including the capital letter Z.

When you do this, the alert box will show up as a response to your inputting the capital letter Z.

Detecting Mouse Events

The events that allow you to determine the movements of the mouse are actually better and more beneficial than the events that allow you to detect presses on the keyboard. Nevertheless, there are other events that you can detect such as the following:

mousedown : It refers to when mouse buttons are pressed over elements.

mouseenter : It refers to when mouse cursors enter selected elements, but such elements are not children.

mouseleave : It refers to when mouse cursors leave selected elements.

mousemove : It refers to the movement of the mouse.

mouseout : It refers to when mouse cursors leave selected elements.

mouseover : It refers to when mouse cursors enter selected elements or their children.

mouseup : It refers to when mouse buttons are released.

If you want to detect the instance when mouse cursors move over and leave the elements on the Web page, you can follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<img src="images/home.gif" id="mouseoverme">
<div id="outputdiv">This text will change.</div>
</body>
</html>
This puts an image on the page with an id attribute of
mouseoverme.
The page also has a <div> element with the outputdiv id attribute.
The
<div> element is used to display text when your mouse moves over
the
image.
```

2. Save the file.

3. Change your code and replace it with the following:

```
$('#mouseoverme').mouseover(function() {
$('#outputdiv').text('You moused over the image.'); });
```

The mouseover event is attached by the selector to the element <img> and has an id of mouseoverme. The next line alters the text found within the element and uses the id outputdiv when the element <img> gets moused over.

4. Save the file. Then, you can open and view it on your Web browser.

5. Move the mouse towards your image and simply hover it. Observe how your text changes.

6. Include the following codes below your previous code:

```
$('#mouseoverme').mouseout (function() {
$('#outputdiv').text('You moused out of the image.'); });
```

As you can see in the above given sample code, it is very much the same as the

code you used previously. However, rather than use a mouseover event, it uses a mouseout event so that the text within the element changes to signify your mousing out of the element <img>.

7. Save the file. Then, you can open and view it on your Web browser.

8. Move the mouse towards your image and then move the mouse out of it. Observe how your text changes at this point.

Interaction Helpers

If you wish to use the mouseout and mouseover events frequently, you can click on elements. You can use the same technique if you wish to detect several events. In jQuery, you will find a couple of event functions if you want to simplify your activities. These are referred to as interaction helpers. You can think of them as several events that are grouped together into one function that simplifies codes.

Hovering

You have used mouse events to modify texts in elements. These two events are mouseout and mouseover. To simplify things even further, you can use hover. It is an event used in jQuery to combine the mouseleave and mouseenter events.

If you want to use a single hover, you can follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<img src="images/home.gif" id="mouseoverme">
<div id="outputdiv">This text will change.</div>
</body>
</html>
```

2. Save the file.

3. Change your code and replace it with the following:

```
$('#mouseoverme').hover(
function() {
$('#outputdiv').text('You moused over the image.');
},
function(){
$('#outputdiv').text('You moused out of the image.');
});
```

As you can see, the hover event is attached by the selector to the element <img> using the id mouseoverme. The function within your hover event modifies the text within the element using the id outputid when the element <img> gets moused over it.

The next function modifies the text within the element to signify that your mouse has already gone off your image.

Your hover event has a syntax of hover (over, out). You have to wait until your mouseover event occurs before you input a function. Then, you have to wait until your mouseout event occurs before you input your second function.

Be careful when you use curly braces, parentheses, comma, and semicolons with your hover event helper.

4. Save the file. Then, you can open and view it on your Web browser.

5. Move the mouse over. Then, move the mouse off your image. Observe how your texts change.

TOGGLING FUNCTIONS

If you want to execute a variety of codes every time you click on an element, you can use a toggle event. If you want to customize texts within elements every time users click on elements, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>

<img src="images/home.gif" id="toggleme">
<div id="outputdiv">This text will change.</div>
</body>
</html>
```

2. Save the file.

3. Change your code and replace it with the following:

```
$('#toggleme').toggle(
function() {
$('#outputdiv').text('You clicked the image once.');
},
function(){
$('#outputdiv').text('You clicked the image twice.');
},
function(){
$('#outputdiv').text('You clicked the image three times.');
});
```

Your toggle event is attached by the selector to the element <img> with the id toggleme. You can see that the function within your toggle event modifies your

text within your element, which contains the id value outputdiv once you click on the element <img> for the first time ever. Then, your next function modifies your text within the element during the second time of you clicking on the image. The third and final function modifies your text within the element once you click on that element for the third time.

Toggle (function 1, function 2, function 3, function 4, …) is the syntax for the hover event. The moment your click event occurs is the time when your inputted function takes place. Then, when a click event occurs again, the other function that you used will occur. The same cycle will go on over and over.

4. Save the file. Then, you can open and view it on your Web browser.

5. Click on the image over and over. Then, you must observe the way your texts change. Once you arrive at the end of your function list, your first toggle function will execute one more time.

Chapter 6 : Showing and Hiding Web Page Elements

In this chapter, you will learn how you can hide and show elements on your Web page. You will learn how to use buttons and keywords, as well as how to hide elements according to type, id, and with the use of animations. You will also learn how to show elements by id’s and with animations. Furthermore, you will learn about toggling and callback functions.

Hide and Show

In jQuery, two of the most amazing effects that you can use on your Web pages are showing elements that are hidden and hiding elements that are visible. The hide and show dynamic makes your Web page all the more exciting.

It is crucial for you to learn how to make elements appear, disappear, as well as toggle between visibility and invisibility. If you want elements to be either hidden or shown, you have to use events, such as button presses. You can also mouse over images.

HIDING THE ELEMENTS

You can use events to hide some elements on your Web page. In general, you can hide elements using a variety of methods, such as through the use of a button, an id, the keyword 'this', and animation.

Using Buttons to Hide Elements by Type

If you want to make everything within your element disappear each time a visitor clicks on a button featured on your Web page, you can follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
strict.dtd">

<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div>This will be hidden.</div>
<div>This will be hidden.</div>
<input value="Hide" type="submit">
</body>
</html>
```

As you can see in the above given sample code, there is a button and a couple of elements.

2. Save your file. Then, you can open and view it on your Web browser.

3. Take note of the text found within the elements. When you click on the button, no change is made.

4. Change your code and replace it with the following:

```
$(':submit').click(function () {
$('div').hide();
});
```

If you look at the codes closely, there are quite a lot of things going on. For instance, when a button gets clicked, everything found within your elements will be hidden. The code makes use of a submit selector. A click even, on the other hand, sets the necessary action to be done. A hide function is used together with a selector to hide both of the elements.

5. Save the file. Then, you can open and view it on your Web browser.

6. Finally, you have to click on the button.

Now, all the things that are within your elements are hidden. If the button is clicked, the elements that are found within your selector become hidden. It is actually more ideal to pinpoint specific elements for you to hide because of your event. In addition, you may assign ids to HTML elements if you want. Likewise, you may use class selectors if you have to select elements for your Web page.

Hiding Elements by IDs When Clicked

In jQuery, you can also make all the contents of the elements with ids disappear whenever a visitor clicks on such elements. To do so, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div id="hideme">This will be hidden.</div>
<div>This will not be hidden.</div>
</body>
</html>
```

As you can see, it features the element with the id attribute called hideme. However, unlike the one you used previously, this one does not have any buttons.

2. Save your file. Then, you can open and view it on your Web browser.

3. Change your code and replace it with the following:

```
$('#hideme').click(function () {
$('#hideme').hide();
});
```

According to the above given code, when your button gets clicked on, the elements that feature the id hideme become hidden. This code makes use of the selector submit while the action that needs to be done is set up by your click event. Then, your hide function is used together with your id selector. It hides your element that feature the id hideme.

4. Save the file. Then, you can open and view it on your Web browser.

5. When you see your first texts, you have to click on it. Then, everything within your elements will be hidden. You have to keep in mind that your next element goes upward on your Web page. So, if you hide a certain element, it does not only become hidden, but it also acts as if it was no longer part of the Web page. Each and every one of the elements after it goes upward.

THE KEYWORD ‘THIS’

Another way on how you can hide elements is through the use of the keyword ‘this’.

Check out the following codes:

```
$('#hideme').click(function () {
$('#hideme').hide();
});
```

You can see that the id hideme is selected by your outer click event. Likewise, this id is selected by your inner hide function. You can use the following codes to see how you can have the same result as you did using the previous codes, but this time using the keyword ‘this’:

```
$('#hideme').click(function () {
$(this).hide();
});
```

When you are done selecting your class id, you can use the keyword ‘this’ for the functions within your block of code so that they can refer to your selected elements. If you want to test if it truly works, you can run your previous code one more time. This time, however, you have to change #hideme.

Hiding Elements with Animations

In general, elements instantly disappear the moment you hide them. The function hide lets you animate such effect and make it appear like the element fades out. If you want to use the fading out animation effect when you hide your element, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.

});
</script>
</head>
<body>
<div id="slowhide">This will be hidden slowly.</div>
<div id="fasthide">This will be hidden quickly.</div>
<div>This will not be hidden.</div>
<input value="Hide" type="submit">
</body>
</html>
```

As you can see in the above given sample code, it has three elements and a button. Two of these elements have ids with them.

2. Save your file. Then, you can open and view it on your Web browser.

3. See to it that you keep an eye out of your text within your elements. Click on the button. You will see that nothing really happens when you do this.

4. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('#slowhide').hide('slow');
$('#fasthide').hide('fast');
});
```

As you can see in the above given code, when you click on the button, you have to slow down your speed so that you can hide your element that has the id slowhide. Conversely, you have to quickly hide your element that has the id fasthide. The code makes use of the selector submit while the necessary action is set up by your click event.

When it comes to speed, you can expect a couple of predefined speeds in jQuery. These are fast and slow. In addition, you may use numbers to represent how many milliseconds you need to perform animating effects. If you prefer a really

slow animation, for instance, you can replace your line. You can use the following codes:

```
$('#slowhide').hide('slow');
with
$('#slowhide').hide(1000);
```

You have to keep in mind that you do not have to use quotes whenever you use numbers in jQuery. In addition, you have to take note that the value 1000 represents very slow. If you use this number for your speed, you will get a really slow output. If you want something much slower, you can increase your number. For example, you can replace 1000 with 10000 to achieve an extremely slow fading out effect.

How about if you do not set a value for the speed? If you do not use any number to determine the speed of your fading out effect, your program will give it a default value of 400. That number represents a medium speed.

5. Save your file. Then, you can open and view it on your Web browser.

6. You can now click on your button. You have to take note that the elements tend to hide at varying rates. So, you cannot expect their speed to be uniform. In addition, your button and the rest of your elements are inclined to go upwards.

SHOWING THE ELEMENTS

When an element gets hidden, you can expect for it to be shown. So, the hidden elements on your Web page are just as good as the ones that are shown on it. Perhaps, the only difference between hiding and showing elements is that you need to hide your elements before you are allowed to show them. In the most basic sense, you cannot display something without taking it away from view first.

Showing Elements by Ids

In order for you to make hidden elements that have ids visible each time a visitor clicks on a button shown on your Web page, you have to follow the following instructions:

1. Develop a Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div id="showme" style="display:none">This will appear.</div>
<input value="Show" type="submit"></body>
</html>
```

As you can see in the above given sample code, there is an element that features the id attribute called showme. Such element is actually hidden. It was hidden with the use of a CSS style attribute.

2. Save your file. Then, you can open and view it on your Web browser. You have to take note that your element will not be visible on your Web page.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('#showme').show();
});
```

As you can see in the above given sample code, when your button gets clicked on, an element that has the id showme is shown. Your code makes use of the selector submit while the action that has to be performed is set by the click event. Then, your show function, which has an id selector, shows your element that has the id showme.

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You have to take note that your elements, which were previously hidden, are not visible on the Web page. See to it that you check out how your elements changed your button lower. Keep in mind that when hidden elements become visible, they act as if they were included to your Web page. Every page element under that goes downwards. This process is referred to as the browser repaint and it is another one of the most commonly performed actions in jQuery.

Showing Elements with Animation

You can expect for hidden elements to disappear immediately after showing them. The function show is similar to the function hide in the way that it lets you make it seem like your element is starting to fade in. If you want to use fading in animation for your elements, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.

});
</script>
</head>
<body>
<div id="slowshow" style="display:none">This will be shown
slowly.</div>
<div id="fastshow" style="display:none">This will be shown
quickly.</div>
<input value="Show" type="submit">
</body>
</html>
```

As you can see in the above given code, there is a button and a couple of elements featured.

2. Save your file. Then, you have to open and view it on your Web browser. You can see that your text found within your elements is not really visible.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('#slowshow').show(2000);
$('#fastshow').show(500);
});
```

As you can see in the above given code, when you click on your button, you will be able to show your element that has the id slowshow. It will also be shown with a speed of two thousand milliseconds because you used the number 2000 for its speed value. Because 2000 is such a high number, your effect will be really slow. As you have read previously, the higher the value is, the slower the speed gets.

Conversely, you will show your element that has the id fastshow. It will also be shown with a speed of five hundred milliseconds because you used the number 500. This number is much lower than 2000, so you can expect your effect to be

done quickly. In essence, the lower the value is, the faster the speed gets.

The code makes use of the selector submit while the action that has to be done is set up by your click event. You are allowed to use fast, slow, and medium for your speed. These speeds are predefined in jQuery. So, if you cannot think of an ideal value or did not specify a number in your code, you can simply choose from these three. Nevertheless, you can always give a specific number to represent how many milliseconds you want your animation effect to show.

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You have to keep in mind that your elements are shown at varying speeds. The button also moves downwards.

TOGGLING VISIBILITY

You have learned that it is possible to hide and show elements in jQuery. You have also learned that you can choose or define the speed at which you want your effects to be done.

How about if you want to go back and forth with showing and hiding the elements? Can you even do that? The answer to this question is 'yes'. You can use the function toggle to perform this task.

If you want to make all the things found within your element toggle between showing and hiding whenever a user clicks on a button repeatedly on your Web page, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div>This will be hidden.</div>
<div>This will be hidden.</div>
<input value="Toggle" type="submit">
</body>
</html>
```

As you can see in the above given code, there is a button included and a couple of elements.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').toggle();
});
```

As you can see in the above given code, when you click on a button, all the elements will be hidden if they are visible. Conversely, these same elements will be visible if they are hidden. The code makes use of the selector submit while the action that has to be done is set up by the click event. The function toggle, which is used in combination with your selector, then toggles the two elements at the same time.

3. Save your file. Then, you can open and view it on your Web browser.

4. You can now click on your button. You have to keep in mind that all the things contained within your elements are hidden during the first time they are clicked.

5. You have to click on the button one more time in order to make all the things contained within your elements show up one more time.

6. Next, you have to locate the other within your <body> section. You have to check your code, and then when you find it, you have to replace it using the following line of code:

```
<div style=”display:none”>This element is hidden at first.</div>
```

The above given code hides the next element once your Web page starts loading.

7. Save your file. Then, you can open and view it on your Web browser.

8. You can now click on your button. When you first load your Web page, you will only see the first element. However, when you click on the button, this first element will no longer be visible and your second element will show up.

9. Finally, you have to click on the button one more time in order for the elements to toggle.

Toggling with Animations

If you wish to toggle with animations, you can simply modify the speed setting of your toggle function. You have to add the speed that you want. It is basically the same process as when you use the functions for showing and hiding your elements.

Anyway, in order for you to be able to animate toggle functions, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.

});
</script>
</head>
<body>
<div>This will be an animated toggle.</div>
<input value="Toggle" type="submit">
</body>
</html>
```

2. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').toggle('slow');
});
```

As you can see in the above given code, your toggle function has been set to slow. If you want to change the speed, you just have to modify your code.

3. Save your file. Then, you can open and view it on your Web browser.

4. You can now click on your button. You will now see that your element is either fading in or fading out in a slow pace. Whenever you click on the button, the effects are applied to the element.

USING CALLBACK FUNCTIONS

The toggle, hide, and show functions let users add callback functions to their programs. The callback function refers to the code that runs when your effect is done being applied to the element. If you want to open your alert box with the callback function after you are done toggling an element, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div>This will be an animated toggle.</div>
<input value="Toggle" type="submit">
</body>
</html>
```

2. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').toggle('slow',
function callback() {
alert('The toggle is finished')
});
});
```

As you can see in the above given code, the animated toggle of your elements is executed. Once this animation is over, the alert box shows up.

See to it that you check out the callback function's syntax. You will see that its syntax is something like the following:

```
toggle(speed, function callback(){};)
```

Thus, if you plan to use the callback function in your codes, see to it that you follow the above given syntax.

Then again, if you do not really want your toggle to be animated, you may simply remove your setting for speed. When you have successfully deleted that, you can use the following code:

```
toggle(function callback(){};)
```

3. Save your file. Then, you can open and view it on your Web browser.

4. Finally, you have to click on your button.

When you do that, you can expect your element to either fade in or fade out in slow motion. You can expect this to take place every moment you click on the button. On the other hand, your callback function turns to your alert box and opens it. When it does it, it means that your effect has been done.

You should feel free to use the callback function along with the functions for showing and hiding elements. You can also use it along with your toggle function.

Chapter 7 : Fading and Sliding Web Page Elements

In this chapter, you will learn how you can fade and slide the elements on your Web page. You will learn how you can slide them downwards and upwards, as well as how you can change their slide speeds. You will also learn how you can slide elements using toggle functions and callback functions. In addition, you will learn how you can fade elements inwards, outwards, and partially.

Fade and Slide

The fun of jQuery does not stop with hide and show. You can also take advantage of the fade and slide functions.

You see, when a particular elements fades, it turns to being completely opaque to being transparent or semi-transparent. Then, when a particular element slides, it shows up on the Web page slowly, beginning from bottom up or top down.

SLIDING ELEMENTS

In jQuery, you can use a sliding effect. This effect refers to the process in which the element is shown from bottom up or top down. When this happens, you will not be able to see anything on your Web page because nothing is going to move, except for the element.

You will be amazed to find out that the effects of sliding up and down work well with images and blocks that have background colors.

Sliding Downwards

If you want a particular element on your Web page to slide down, you have to hide it first. Just as you have learned earlier in this book, you cannot show an element unless you hide it first. In order for you to hide such element, you have to set the style attribute accordingly. In this case, you have to set the display to none.

When you use images to show the effect of sliding, you are better off using large ones. The larger your image is, the more impressive the effects can show on it. You can always use any image from your directory, but you can also obtain one from the Internet.

If you are getting an image from the Internet, you have to save it on your images directory. You also have to use .gif as its extension.

Anyway, in order for you to make your element show up on your Web page with the use of the sliding effect, you have to follow the following instructions. These instructions will allow you to make your elements slide downwards.

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div style="display:none"><img src="images/big.gif" /></div>
<input value="Slide Down" type="submit">
</body>
</html>
```

As you can see in the above given code, there is a element that is hidden. This element also features a button and an image.

2. Save your file. Then, you can open and view it on your Web browser.

3. Make sure that you keep an eye out on your image. You can see that it does not appear. When you click on your button, you get no effect. Nothing really happens at this point.

4. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').slideDown();
});
```

As you can see in the above given code, when you click on the button, you will be able to make all the elements within your element show up using the sliding down effect. In this case, you used slideDown to make that happen. The code makes use of the selector submit while the action that has to take place is set up by your click event.

5. Save the file. Then, you can open and view it on your Web browser.

6. You can now click on your button. Keep in mind that this effect will make the image within your element show up from top down.

Sliding Upwards

If you want a particular element on your Web page to slide up, you can give it the sliding up effect.

You can follow the following instructions if you want to make a particular element on your Web page slide upwards:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>

<body>
<div><img src="images/big.gif" /> </div>
<input value="Slide Up" type="submit"></body>
</html>
```

As you can see in the above given code, there is a button and an image shown with the element.

2. Save your file. Then, you can open and view it on your browser. You can see that your image has appeared.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').slideUp();
});
```

As you can see in the above given code, when you click on a button, all the elements found within your element disappear due to the sliding up effect that you used. In this case, you used slideUp to make that happen. The code also makes use of the selector submit as well as the click event for setting up the action that has to be performed in the program.

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You have to keep in mind that the sliding up effect will make the image you place within your element move upwards before disappearing from plain sight.

CHANGING SLIDE SPEEDS

You can also control how fast or how slow you want your effects to be. You should feel free to change your slide speeds accordingly. All you have to do is go to your speed setting and input the values that you prefer.

As you have learned in previous chapters, you can choose from the predefined speeds in jQuery. There are actually three: fast, slow, and medium. It is completely up to you to choose a certain speed. Depending on the needs of your program or your personal preference, you can have your effects very fast, very slow, or just the right amount of slowness and quickness.

In addition, you may use a value that represents how many milliseconds are spent during the duration of the animation.

To help you understand this concept further, you have to take a look at the following example:

```
$(‘div’).slideUp(‘slow’);
or
$(‘div’).slideUp(1000);
```

When you use numbers in your codes, see to it that you do not include quotes. You can only use these quotes if you are using words to determine the speed of your effects.

As you can see in the above given example, the number 1000 is used for the speed of the effect. This value is quite large. So, you can expect your effect to be executed slowly. You have read from previous chapters that the bigger your number is, the slower your effect becomes. Thus, if you prefer a slow motion effect, it is recommended that you use the number 1000 and above.

Conversely, if you want your effect to be executed faster, you have to lower your value. You should use a number that is lower than 1000 such as 500. In essence, the smaller your number is, the faster your effects become.

SLIDING WITH TOGGLE EFFECTS

The effects of sliding up and down actually work well with hiding and showing elements. You may use the effect of slide toggle if you want your Web page visitors to toggle between events that slide up and events that slide down.

In order for you to be able to apply this sliding toggle effect, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div><img src="images/big.gif" /></div>
<input value="Slide Toggle" type="submit">
</body>
</html>
```

As you can see in the above given sample code, there is a element and a button. The element is visible and has an image contained within in.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').slideToggle();
});
```

As you can see in the above given code, when you click on a button, all the elements are toggled to slide upwards if they are visible and conversely, they are toggled to slide downwards if they are not visible. The code makes use of the selector submit while the action that has to take place is set up by your

click event. You have to take note that your elements are toggled by your toggle function.

3. Save your file. Then, you can open and view it on your Web browser.

4. You can now click on your button. See to it that you keep an eye out for your element. You can see that all the elements contained within it slide upwards when you first click on your button.

5. You have to click on the button one more time in order for you to make all the elements contained within your element move downwards.

SLIDING WITH CALLBACK FUNCTIONS

The effects of sliding upwards, sliding downwards, and sliding toggle let you make use of the callback function. This one executes when the effect has been applied.

The following instructions will let you use the callback function so that you can open your alert box once you have toggled a particular element:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div><img src="images/big.gif" /></div>
<input value="Slide Toggle" type="submit">
</body>
</html>
```

2. Save the file.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').slideToggle(
function callback() {

alert('The slide effect is finished')
});
});
```

As you can see in the above given sample code, the slide toggle is executed on the elements in your program. Once your slide animation is done, your alert box will show up on the screen.

Keep in mind that the function slide toggle has this syntax. So, if you ever decide to use it for your codes or program, see to it that you follow it accordingly:

```
slideToggle(speed, function callback(){};)
```

Then again, if you do not really want for your toggle to be animated, you can simply get rid of your settings. You can easily modify the settings for your speed. When you are done doing that, you can use these codes instead:

```
slideToggle(function callback(){};)
```

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You have to take note that your element slides upward or downward every time you choose to click on your button.

After this effect, your callback function will open your alert box. When this happens, you know that your effect has been successfully applied on the element of your choice.

You should feel free to use the callback function together with the sliding down and sliding up effects if you want. You can also use the sliding toggle function if you think that it is necessary.

FADING ELEMENTS

In jQuery, you can also use a fade effect. This effect refers to the process in which a particular element becomes more and more transparent until it eventually fades out. Conversely, it can also fade in or become less and less transparent. Then again, if you do not want any of these two extremities, you can choose to stay in between. You can choose to simply fade your element partially so that it does not completely fade out or fade in.

Faded In

If you want to make a particular element on your Web page fade in, you have to hide it first. Once again, it is a rule of thumb in jQuery that you need to hide your element before you can show it or apply effects on it.

Since you want your element to fade in, you have to set your style attributes to display = none. You can use an image from your directory or get one from the Internet. Of course, you have to save your image with a .gif extension in your images directory before you can use it for your program.

When everything has been dealt with, you can start writing your codes. The following instructions have to be followed in order for you to successfully make the elements on your Web page fade in.

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div style="display:none"><img src="images/big.gif" /> </div>
<input value="Fade In" type="submit">
</body>
</html>
```

As you can see in the above given sample code, there is a element that is hidden and a button. There is also an image contained within the element.

2. Save your file. Then, you can open and view it on your Web browser. You can see that your image does not really appear at this point.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').fadeIn();
});
```

As you can see in the above given code, when you click on your button, everything contained within your element fades in. The code makes use of the selector submit while the actions that have to take place are set up by your click event.

4. Save your file once again. Then, you can open and view it on your Web browser one more time.

5. You can now click on your button. As you have already noticed, your image that was contained within your element has already faded in.

6. Change your code, which in this case is $ ('div').fadeIn ( ) ; with these codes:

```
$ ( 'div' ).fadeIn ( 'fast' ) ;
```

When you are done with that step, you have to save your file and then reload it on your Web browser. Finally, you can click on your button to see the effect of fading in occur faster.

Faded Out

Aside from using the effect of fading in, you can also use the effect of fading out for the elements of your Web page. This effect hides visible elements and makes them appear as if they are fading out.

If you want to make the elements on your Web page disappear using this effect, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.

});
</script>
</head>
<body>
<div><img src="images/big.gif" /> </div>
<input value="Fade Out" type="submit"></body>
</html>
```

As you can see in the above given code, an image is contained within the element. There is also a button.

2. Save your file. Then, you can open and view it on your Web browser. Make sure that you pay attention to your image. You can see that it is already visible at this point.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').fadeOut();
});
```

As you can see in the above given sample code, when you click on the button,

everything within your element disappears because of the effect slideUp. The code makes use of the selector submit while the action that has to be done is set up by your click event.

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You can see that the image contained within your element has already faded out and then disappeared from plain sight.

Partially Faded

In jQuery, you have the option to go for partially faded effects. This means that you can get the best of both worlds. Your element does not have to completely fade in or completely fade out. You can choose to fade a specific amount until it becomes transparent.

The syntax that you have to use is

```
fadeTo ( speed, percent , [ callback ] ) ;
```

Percent is then expressed as decimal. It is also used for controlling the amount of fading out an element should get.

It is up to you if you would use a callback function. However, even though it is optional, you still have to determine a specific percent and speed for it. Not like any other effects, however, you have to specify the duration that you prefer.

In order for you to make elements fade out partially, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div><img src="images/big.gif" /> </div>
<input value="Partial Fade" type="submit"></body>
</html>
```

2. Save your file.

3. Change your code and replace it with the following codes:

```
$(':submit').click(function () {
$('div').fadeTo('slow', .55);
});
```

As you can see in the above given code, when you click on your button, everything contained within your element fades out at about fifty percent.

4. Save your file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You will then see that your image within your element has faded out partially.

CHAPTER 8 : WEB PAGE ELEMENT ANIMATION

In this chapter, you will learn all about animating the elements on your Web page. You will learn about using animation to get your desired effects. You will also learn about margin padding and width, opacity, and word spacing and font size.

JQUERY ANIMATION

Animation is one of the best effects that you can give your elements in jQuery. It does not only make your Web page more fun, but it also makes it more attractive and improves user interaction.

With jQuery, you can choose from a wide range of CSS styles for your elements. The style settings include the size, width, and height of the font, and so much more. You can also make the elements of your Web page become smaller or bigger over time. You can make them move across your Web page as well.

As you continue to write codes, you will find out how you can animate your elements as well as their attributes. You will also learn how you can control their speed and how you can start or stop them as a response to your events.

With jQuery, you can animate numerous style settings of CSS, which are all related to the elements of HTML. To help you understand this concept further, you have to take a look at the following codes:

```
<div style="width:200px; height:200px; background-color: gray;
border:10px;
border-color:red; border-style:dotted ">My div</div>
```

The above given sample code generates a box that is gray in color and has a dotted and thick red border.

In the code, you can see the element , which is closely related to the styles that follow:

height : It refers to the height in pixels.

width : It refers to the width in pixels.

border : It refers to the border thickness in pixels.

border – style : It refers to the border appearance.

border – color : It refers to the border color.

background – color : It refers to the color.

In jQuery, you can apply animation to the border, width, and height of your elements. Since all of these are numeric values, they can either shrink or grow.

Then again, in spite of all the great things that you can do with animation, you still have to keep in mind that there are certain limitations. For instance, you cannot modify the style setting when it comes to color. You cannot simply change one color into another. Likewise, you cannot modify the style of your border.

Nevertheless, you are still allowed to use plugins if you wish to animate the colors of your elements.

If you want to animate the width and height of a certain element, you can use the following codes:

```
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
$(':submit').click(function(){
$('div').animate({
width:'280px',
height: '140px'
} );
});
});
</script>
</head>
<body>
<div style="width:200px; height:200px; background-color: gray;
border:10px">My
div</div>
<br />
<input value="Animate" type="submit">
</body>
</html>
```

As you can see in the above given sample code, your element is animated. Its width was changed from 200 pixels to 280 pixels. Its height was also changed from 200 pixels to 140 pixels.

The syntax of the animate function in jQuery is as follows:

```
animate ( params, duration, callback )
```

You also have to take note of the parts of functions. There are three: params, duration, and callback.

Params refers to a certain comma-delimited list. This list is all about the rules of style that you can animate.

Duration is actually optional. So, you can either include it or leave it in your code. This argument controls the speed of your animation. You can use fast, slow, or medium for your values, but you can also choose a specific number to represent your speed.

Callback is also optional, so you can either include it or leave it in your code. It executes once your animation has been completed.

There is another argument that you may want to use for your codes. It is called the easing argument. It specifies whether or not your animation will become faster by the end of your program. It may also indicate if your animation is going to start fast and eventually slow down. It requires an added plugin.

When you look at the sample codes in jQuery, you may see that its style elements are somehow different from those of the CSS style elements. CSS style elements make use of hyphens while jQuery elements tend to not have hyphens but capitalize the second word of the name instead.

Are there other styles that you can animate using jQuery? Yes, there are several more. These are the following:

border-width or borderWidth : It refers to the four borders' width. If you want, you may set every width of the border individually. You can use border-bottom-width, border-top-width, border-left-width, and border-right-width.

width : It refers to the element width.

height : It refers to the element height.

font-size or fontSize : It refers to the text's font size.

margin : It refers to the element's margin. If you want, you may also set every

margin separately. You can use margin-top, margin-left, margin-bottom, and margin-right.

padding : It refers to the space that surrounds the element. If you want, you may pad every side separately. You can use padding-top, padding-right, padding-left, and padding-bottom.

bottom : It refers to the edge of the margin at the bottom of the page.

left : It refers to the edge of the margin at the left side of the page.

right : It refers to the edge of the margin at the right side of the page.

top : It refers to the edge of the margin at the top of the page.

word-spacing or wordSpacing. It refers to the decrease or increase in the spaces between the words.

Animation Of Elements

In jQuery, you are allowed to mix and match styles with various elements.

If you want to animate the width and height of a particular element, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div style="width:200px; height:200px;
background-color: gray; border:10px">My div</div>
<br />
<input value="Animate" type="submit"></body>
</html>
```

As you can see in the above given code, there is a button and a element.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function(){
$('div').animate({
width:'280px', height: '500px'
});
});
```

As you can see in the above given sample code, when you click on a button, your element will be animated to 500 pixels high and 280 pixels wide. The code makes use of the selector submit while the action that has to take place is set by your click event.

3. Save the file. Then, you can open and view it on your Web browser.

4. You can now click on your button. Your element grows and animates. It changes from 200 pixels by 200 pixels to 280 pixels by 600 pixels.

5. Change your code and replace it with the following dimensions so that your initial element will become smaller instead of bigger:

```
width:’20px’, height: ‘50px’
```

6. Save the file. Then, you can open and view it on your Web browser.

7. You can now click on your button. Your element shrinks and animates. It becomes smaller and changes from 200 pixels by 200 pixels to 20 pixels by 50 pixels. You have to keep in mind that the text found within your element actually wraps in order to fit within a smaller space.

MARGIN PADDING AND WIDTH

If you want to animate the padding and width of the margin of a particular element, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div style="width:200px; height:200px;
background-color: gray; border:10px">My div</div>
<br />
<input value="Animate" type="submit"></body>
</html>
```

As you can see in the above given sample code, there is a button and a element.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function(){
$('div').animate({
margin:'50px'
});
});
```

As you can see in the above given sample code, when you click on the button, the margin of the element gets animated and changed to 50 pixels wide.

3. Save the file. Then, you can open and view it on your Web browser.

4. You can now click on your button. You can see that the margin of your element has been animated and grown from 0 pixel to 50 pixels.

5. Change margin : ’50 px’ to padding : ’50 px’. When you replace your code, you make the padding or the space within your bigger.

6. Save the file. Then, you can open and view it on your browser.

7. You can now click on your button and see that the padding within your element has been animated and grown from 0 pixel to 50 pixels.

OPACITY

You can also play with opacity and animate it. You can make your elements fade or become semi-transparent. If you want to animate your elements' opacity, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>

<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>
<body>
<div class="fadethis" style="width:200px; height:200px;
background-color: red; border:10px">My div</div>
<br />
<img class="fadethis" src = "images/home.gif" />
<br />
<input value="Animate" type="submit"></body>
</html>
```

As you can see in the above given sample code, an image and an element are present. Both of them have the class name fademe. In jQuery, you can use any names for your classes. These classes offer you the opportunity to choose elements that have the same selector easily.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function(){
$('.fadethis').animate({
opacity: 0.25
});
});
```

As you can see in the above given code, when you click on a button, all the

elements that belong to the class fademe are animated to twenty-five percent or .25 opacity.

3. Save the file. Then, you can open and view it on your Web browser.

4. You can now click on your button. The elements <img> and both animate as well as fade to twenty-five percent opacity.

WORD SPACING AND FONT SIZE

If you want to animate growing or shrinking texts as well as modify the spacing between the words in your program, you have to follow the following instructions:

1. Develop your Web page and make sure that it contains the following codes:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0
Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<title>My Test Page</title>
<script type="text/javascript" src="js/jquery-
1.4.min.js"></script>
<script type="text/javascript">
$(document).ready(function(){
//Your code goes here.
});
</script>
</head>

<body>
<div>I'd like to say a few short words.</div>
<br />
<input value="Animate" type="submit"></body>
</html>
```

As you can see in the above given sample code, the element has some texts.

2. Change your code and replace it with the following codes:

```
$(':submit').click(function(){
$('div').animate({
fontSize: '100px'
});
});
```

Even if you change your font-size, see to it that you still use fontSize whenever you use the function animate. As you can see in the above given code, when you click on the button, the text within your element is animated and its font size is increased to 100 pixels.

3. Save the file. Then, you can open and view it on your Web browser.

5. You can now click on your button. You can see that the text within your element is animated and grown to 100 pixels.

CONCLUSION

Thank you again for downloading this book!

I hope this book was able to help you learn how to use jQuery for writing codes and programs.

The next step is to apply the lessons and tips that you have learned from this book, and start creating programs for various purposes.

Finally, if you enjoyed this book, then I'd like to ask you for a favor, would you be kind enough to leave a review for this book on Amazon? It ' d be greatly appreciated!

Click here to leave a review for this book on Amazon!

Thank you and good luck!

Other Books By ICode Academy

If you want to know more about other books from the series, click on the link in each title:

Book 1 : **Java Programming: Your Step by Step Guide to Easily Learn Java in 7 Days**

Book 2 : Programming For Beginners: 3 Manuscripts in 1 Bundle - Python For Beginners, Java Programming and Html & CSS For Beginners

Book 3: **HTML & CSS For Beginners: Your Step by Step Guide to Easily HtmL & Css Programming in 7 Days**

Book 4: C Programming for Beginners: Your Guide to Easily Learn C Programming In 7 Days

Book 5: JQuery For Beginners: Your Guide To Easily Learn Jquery Programming in 7 Days

Book 6: HTML5 and CSS3 for Beginners: Your Guide To Easily Learn Html5 and Css3 in 7 Days

Book 7: SQL For Beginners: Your Guide To Easily Learn SQL in 7 Days

Did you enjoy this book?

I want to thank you for purchasing and reading this book. I really hope you got a lot out of it.

Can I ask a quick favor though?

If you enjoyed this book I would really appreciate it if you could leave me a positive review on Amazon.

I love getting feedback from my customers and reviews on Amazon really do make a difference. I read all my reviews and would really appreciate your thoughts.

Thanks so much.

The ICode Academy

p.s. You can click here to go directly to the book on Amazon and leave your review.