

## Chapter 7 : JQuery Get and Set

JQuery contains powerful methods for changing and manipulating HTML elements and attributes.

### jQuery DOM Manipulation

One very important part of jQuery is the possibility to manipulate the DOM.

jQuery comes with a bunch of DOM related methods that make it easy to access and manipulate elements and attributes.

DOM = Document Object Model

The DOM defines a standard for accessing HTML and XML documents:

"The W3C Document Object Model (DOM) is a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document."

### Get Content - text(), html(), and val()

Three simple, but useful, jQuery methods for DOM manipulation are:

- text() - Sets or returns the text content of selected elements
- html() - Sets or returns the content of selected elements (including HTML markup)
- val() - Sets or returns the value of form fields

The following example demonstrates how to get content with the jQuery text() and html() methods:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("#btn1").click(function(){

        alert("Text: " + $("#test").text());

    });

});
```

```
$("#btn2").click(function(){
    alert("HTML: " + $("#test").html());
});
});
</script>
</head>
<body>
<p id="test">This is some <b>bold</b> text in a paragraph.</p>
<button id="btn1">Show Text</button>
<button id="btn2">Show HTML</button>
</body>
</html>
```

The following example demonstrates how to get the value of an input field with the jQuery val() method:

```
<!DOCTYPE html>
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
    $("#button").click(function(){
        alert("Value: " + $("#test").val());
    });
});
</script>
</head>
<body>
```

```
<p>Name: <input type="text" id="test" value="Linkin Park"></p>

<button>Show Value</button>

</body>

</html>
```

## Get Attributes - attr()

The jQuery attr() method is used to get attribute values.

The following example demonstrates how to get the value of the href attribute in a link:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("button").click(function(){

        alert($("#test").attr("href"));

    });

});

</script>

</head>

<body>

<p><a href="https://www.william.com" id="test">william.com</a></p>

<button>Show href Value</button>

</body>

</html>
```

## Set Content - text(), html(), and val()

We will use the same three methods from the previous page to set content:

- text() - Sets or returns the text content of selected elements
- html() - Sets or returns the content of selected elements (including HTML markup)
- val() - Sets or returns the value of form fields

The following example demonstrates how to set content with the jQuery text(), html(), and val() methods:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("#btn1").click(function(){

        $("#test1").text("Hello world!");

    });

    $("#btn2").click(function(){

        $("#test2").html("<b>Hello world!</b>");

    });

    $("#btn3").click(function(){

        $("#test3").val("Dolly Duck");

    });

});

</script>

</head>

<body>

<p id="test1">This is a paragraph.</p>

<p id="test2">This is another paragraph.</p>
```

```
<p>Input field: <input type="text" id="test3" value="Mickey Mouse"></p>

<button id="btn1">Set Text</button>

<button id="btn2">Set HTML</button>

<button id="btn3">Set Value</button>

</body>

</html>
```

## A Callback Function for text(), html(), and val()

All of the three jQuery methods above: text(), html(), and val(), also come with a callback function. The callback function has two parameters: the index of the current element in the list of elements selected and the original (old) value. You then return the string you wish to use as the new value from the function.

The following example demonstrates text() and html() with a callback function:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("#btn1").click(function(){

        $("#test1").text(function(i, origText){

            return "Old text: " + origText + " New text: Hello world! (index: " + i + ")";

        });

    });

    $("#btn2").click(function(){

        $("#test2").html(function(i, origText){

            return "Old html: " + origText + " New html: Hello <b>world!</b> (index: " + i + ")";

        });

    });

});

});
```

```
});  
});  
</script>  
</head>  
<body>  
<p id="test1">This is a <b>bold</b> paragraph.</p>  
<p id="test2">This is another <b>bold</b> paragraph.</p>  
<button id="btn1">Show Old/New Text</button>  
<button id="btn2">Show Old/New HTML</button>  
</body>  
</html>
```

## Set Attributes - attr()

The jQuery attr() method is also used to set/change attribute values.

The following example demonstrates how to change (set) the value of the href attribute in a link:

```
<!DOCTYPE html>  
<html>  
<head>  
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>  
<script>  
$(document).ready(function(){  
  $("button").click(function(){  
    $("#test").attr("href", "https://www.william.com/jquery/");  
  });  
});  
</script>  
</head>
```

```
<body>

<p><a href="https://www.william.com" id="test">William.com</a></p>

<button>Change href Value</button>

<p>Mouse over the link (or click on it) to see that the value of the href attribute has changed.</p>

</body>

</html>
```

The attr() method also allows you to set multiple attributes at the same time.

The following example demonstrates how to set both the href and title attributes at the same time:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("button").click(function(){

        $("#test").attr({

            "href" : "https://www.william.com/jquery/",

            "title" : "William jQuery Tutorial"

        });

    });

});

</script>

</head>

<body>

<p><a href="https://www.william.com" title="some title" id="test">William.com</a></p>
```

```
<button>Change href and title</button>

<p>Mouse over the link to see that the href attribute has changed and a title attribute is set.</p>

</body>

</html>
```

## A Callback Function for attr()

The jQuery method attr(), also comes with a callback function. The callback function has two parameters: the index of the current element in the list of elements selected and the original (old) attribute value. You then return the string you wish to use as the new attribute value from the function.

The following example demonstrates attr() with a callback function:

```
<!DOCTYPE html>

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<script>

$(document).ready(function(){

    $("button").click(function(){

        $("#test").attr("href", function(i, origValue){

            return origValue + "/jquery/";

        });

    });

});

</script>

</head>

<body>

<p><a href="https://www.william.com" id="test">William.com</a></p>
```



# JQuery

created by

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```
<button>Change href Value</button>
```

```
<p>Mouse over the link (or click on it) to see that the value of the href attribute has changed.</p>
```

```
</body>
```

```
</html>
```