9. jQuery and AJAX

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# 1. jQuery AJAX Introduction

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AJAX stands for "Asynchronous JavaScript and XML". JavaScript includes features of sending asynchronous http request using XMLHttpRequest object. Ajax is about using this ability of JavaScript to send asynchronous http request and get the xml data as a response (also in other formats) and update the part of a web page (using JavaScript) without reloading or refreshing entire web page.

The following figure illustrates the Ajax functionality.

# Ajax methods of jQuery

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The jQuery library includes various methods to send Ajax requests. These methods internally use XMLHttpRequest object of JavaScript. The following table lists all the Ajax methods of jQuery.=>slides: Pg. 4

# jQuery Ajax Events

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The jQuery library also includes following events which will be fired based on the state of the Ajax request.

# jQuery ajax() Method

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The jQuery ajax() method provides core functionality of Ajax in jQuery. It sends asynchronous HTTP requests to the server.

# jQuery ajax() Demo on JSFiddle

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# jQuery Ajax Load

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The jQuery load() method allows HTML or text content to be loaded from a server and added into a DOM element.

# jQuery Ajax Load Example

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In the above example, we have specified html file to load from the server and add its content to the div element.

Note : If no element is matched by the selector then Ajax request will not be sent.

The load() method allows us to specify a portion of the response document to be inserted into DOM element. This can be achieved using url parameter, by specifying selector with url separated by one or multiple space characters as shown in the following example.

# jQuery Ajax Load Demo

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# jQuery get() Method

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The jQuery get() method sends asynchronous http GET request to the server and retrieves the data.

# jQuery get() Example

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The following example shows how to retrieve data from a text file.

In the above example, first parameter is a url from which we want to retrieve the data. Here, we want to retrieve data from a txt file located at mydomain.com/data.txt. Please note that you don't need to give base address.

IMG_256Internally, jQuery get() method calls ajax() method only.

The second parameter is a callback function that will be executed when this GET request succeeds. This callback function includes three parameters data, textStatus and jQuery wrapper of XMLHttpRequest object. Data contains response data, textStatus contains status of request and jqXHR is a jQuery XMLHttpRequest object which you can use for further process.

# jQuery Ajax Get Demo

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# jQuery Ajax Post Method

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The jQuery post() method sends asynchronous http POST request to the server to submit the data to the server and get the response.

# jQuery Ajax Post Example

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Let's see how to submit data and get the response using post() method. Consider the following example.

In the above example, first parameter is a url to which we want to send http POST request and submit the data.

IMG_256Internally, post() method calls ajax() method with method option to POST. Visit [james.padolsey.com/jquery](http://james.padolsey.com/jquery" \o "jQuery source code viewer" \t "https://www.tutorialsteacher.com/jquery/_blank) and search for post() method to see the jQuery source code.

The second parameter is a data to submit in JSON format, where key is the name of a parameter and value is the value of parameter.

The third parameter is a success callback function that will be called when request succeeds. The callback function can have three parameters; data, status and jqXHR. The data parameter is a response coming from the server.

# jQuery Ajax Post Demo

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