jQuery is a JavaScript framework that simplifies js by using short hand syntaxes.

The jQuery library contains the following features:

* HTML/DOM manipulation
* CSS manipulation
* HTML event methods
* Effects and animations
* AJAX
* Utilities

jQuery can either be donwloaded or can be referenced(CDN) but CDN needs active internet connection.

The jQuery syntax is tailor-made for selecting HTML elements and performing some action on the element(s).Basic syntax is: $(selector).action()

A $ sign to define/access jQuery

A (selector) to "query (or find)" HTML elements

A jQuery action() to be performed on the element(s)

Examples

$(this).hide() - hides the current element.

$("p").hide() - hides all <p> elements.

$(".test").hide() - hides all elements with class="test".

$("#test").hide() - hides the element with id="test".

jQuery has a function named ready

$(document).ready(function(){

//jQuery here

})

This only loads jQuery once the HTML dom is loaded.

jQuery Selectors

Element selector $(‘p’).action() - selects paragraph element(generally selects element with corresponding tag name).

Class selector $(‘.classname’).action()- selects element with corresponding classname

|  |  |
| --- | --- |
| $("\*") | Selects all elements |
| $(this) | Selects the current HTML element |
| $("p.intro") | Selects all <p> elements with class="intro" |
| $("p:first") | Selects the first <p> element |
| $("ul li:first") | Selects the first <li> element of the first <ul> |
| $("ul li:first-child") | Selects the first <li> element of every <ul> |
| $("[href]") | Selects all elements with an href attribute |
| $("a[target='\_blank']") | Selects all <a> elements with a target attribute value equal to "\_blank" |
| $("a[target!='\_blank']") | Selects all <a> elements with a target attribute value NOT equal to "\_blank" |
| $(":button") | Selects all <button> elements and <input> elements of type="button" |
| $("tr:even") | Selects all even <tr> elements |
| $("tr:odd") | Selects all odd <tr> elements |

Id selector $(‘#id’).action() - selects the element with respective id

JQuery Events

An event represents the precise moment when something happens.

Mouse events

mouseover,mouseenter,click,dblclick etc.

KeyBoard events

Keyup,keydown,keypress etc.

Form events

submit,change,focus,blur etc.

Document events

load,resize,unload,scroll etc.

$("selector").event(); -> triggers an event

$("selector").event(); -> executes a call back function for a triggered event.

The hover() method takes two functions and is a combination of the mouseenter() and mouseleave() methods.It can trigger two callback functions.

$(‘selector’).on({‘event1’:callbackfn,’event2’:callbackfn…}) it can trigger a series of events on the same element.

The focus(),blur() methods attach event handler functions to HTML form field and are executed when form field gets and loses focus respectively.

jQuery Effects

$(‘#id’).hide() hides the element with given id.

$(‘.class’).show() shows the element with given class.

It has two parameters speed and callback

$(‘p’).hide(1000,callback fn) hides the paragraph in 1 second and then calls the callback function.

show() displays the hidden element.

toggle() oscillates between show() and hidden()

$(‘selector’).toggle()

jQuery Fade

fadeIn() - fades in the display as it appears

fadeOut()- fades out the display as it disappears()

fadeToggle() - toggles between fadeIn and fadeOut()

fadeTo() - It fades to a certain opacity level.

$(‘p’).fadeTo(1000,0.4); - fades to 0.4 opacity in 1 second.

Additional parameters like slow and speed can be used in place of milli seconds and also a callback function().

fadeTo has 3 parameters including callback function and the rest have two.

jQuery slide

slideUp() - slides up the html element.

slideDown() - slides down the html element.

slideToggle() - toggles between slideUp() and slideDown().

(‘selector’).function(speed,callback)

It takes two parameters time and callback function.

jQuery animate

animate lets us add animations to an html element.

$(*selector*).animate({*params*}*,speed,callback*)

One can even specify a property's animation value as "show", "hide", or "toggle.

If animations are declared in sequential order they occur one after the other.

jQuery stop

(‘selector’).stop() stops a certain undergoing animation.

jQuery callback

It call backs the function once the desired event is completed.

Example

(‘p’).hide(1000,function(){

console.log(“paragraph hidden”);

});

It prints paragraph hidden in the console after 1 second after succesfully hiding the paragraph.

jQuery Chaining

Chaining allows us to run multiple jQuery methods (on the same element.

$(‘selector’).action1().action2().action3();

All the 3 actions get executed one after the other.

It also does not follow any indentations.

jQuery HTML

jQuery DOM

Some 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

empty()- Empties the content of selected elements.

If a parameter is not passed then it gets the value,if parameter is passed it sets the value to the passed parameter.

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

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

The callback function has two parameters: the index of the current element in the list of elements selected and the original (old) attribute value.

jQuery add

append() - Inserts content at the end of the selected elements

prepend() - Inserts content at the beginning of the selected elements

after() - Inserts content after the selected elements

before() - Inserts content before the selected elements

jQuery delete

To remove elements and content, there are mainly two jQuery methods:

remove() - Removes the selected element (and its child elements)

empty() - Removes the child elements from the selected element

jQuery css

addClass() - Adds one or more classes to the selected elements

removeClass() - Removes one or more classes from the selected elements

toggleClass() - Toggles between adding/removing classes from the selected elements

css() - Sets or returns the style attribute

The css() method sets or returns one or more style properties for the selected elements.

get property

css("propertyname");

set property

css("propertyname","value");

set multiple properties

css({"propertyname":"value","propertyname":"value",...});

jQuery traversing

parent() gives the parent node of the element.

parents() gives all the parent nodes of the element.

parentsUntil() gves the parent nodes upto a certain element.

The children() method returns all direct children of the selected element.

The find() method returns descendant elements of the selected element, all the way down to the last descendant.

$(‘div’).find(‘p.first’) returns the first paragraph element.

jQuery siblings

The siblings() method returns all sibling elements of the selected element.

The next() method returns the next sibling element of the selected element.

The nextAll() method returns all next sibling elements of the selected element.

The nextUntil() method returns all next sibling elements between two given arguments.

jQuery filtering

The first() method returns the first element of the specified elements.

The last() method returns the last element of the specified elements.

The eq() method returns an element with a specific index number of the selected elements.

The filter() method lets you specify a criteria and those that will match will be returned.

The not() method returns all elements that do not match the criteria.

jQuery AJAX

AJAX = Asynchronous JavaScript and XML.

In short; AJAX is about loading data in the background and display it on the webpage, without reloading the whole page.

jQuery provides several methods for AJAX functionality.

With the jQuery AJAX methods, you can request text, HTML, XML, or JSON from a remote server using both HTTP Get and HTTP Post - And you can load the external data directly into the selected HTML elements of your web page!.

jQuery load()

The load() method loads data from a server and puts the returned data into the selected element.

$(selector).load(URL,data,callback);

The required URL parameter specifies the URL you wish to load.

The optional data parameter specifies a set of querystring key/value pairs to send along with the request.

The optional callback parameter is the name of a function to be executed after the load() method is completed.

The optional callback parameter specifies a callback function to run when the load() method is completed. The callback function can have different parameters:

responseTxt - contains the resulting content if the call succeeds

statusTxt - contains the status of the call

xhr - contains the XMLHttpRequest object

Http GET and POST

Two commonly used methods for a request-response between a client and server are: GET and POST.

GET - Requests data from a specified resource

POST - Submits data to be processed to a specified resource

$.get(URL,callback);

$.post(URL,data,callback);

jQuery noConflict

The jquery noConflict method returns a reference which can be stored and used instead of ‘$’.

var s= $.noConflict()

s(‘element’).selector() is valid.