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# jQuery

# What is jQuery?

- JavaScript library.
- Simplifies javascript programming.
- jQuery is a lightweight, "write less, do more", JavaScript library.
- The purpose of jQuery is to make it much easier to use JavaScript on your website.
- jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.
- jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

## Task:

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

# Features

- Easy to manipulate DOM.
- Massive Community
- Cross browser support
- Many of the biggest companies on the Web use jQuery, such as: Google, Microsoft, IBM etc.
- Work in for all browsers.

# Add jQuery to your webpage

## Two ways:

1. Download the jQuery library from jQuery.com

The jQuery library is a single JavaScript file, and you reference it with the HTML `<script>` tag

```
<head>  
<script src="jquery-3.5.1.min.js"></script>  
</head>
```

2. Include jQuery from a CDN, like Google

```
<head>  
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"  
></script>  
</head>
```

jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and manipulate HTML elements.

Syntax:

**`$(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)

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

# jQuery More Selectors

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

- jQuery css method sets or returns one or more style properties for the selected elements
- \$(selector).css(propertyname)
- \$(selector).css(propertyname, value);
- Return content* : it returns the content of the first matched element.
- Set Content* : it overwrites the content of all matched elements.

- jQuery `before()` method inserts the specified content before the selected elements.

- jQuery `after()` method inserts the specified content after the selected elements.

- `$(selector).before(content)`

- `$(selector).after(content)`



- jQuery **html()** method is used to **set or return the html content** of the selected elements.

- jQuery **text()** method is used to **set or return the content of the selected elements**.

```
$("#body").html()  
"  
  
<h2>This is a heading</h2>  
  
<p>This is a paragraph.</p>  
<p>This is another paragraph.</p>  
<h2> hello</h2>  
<button>Click me to hide paragraphs</button>  
  
"  
-----  
$("#body").text()  
"  
  
This is a heading  
  
This is a paragraph.  
This is another paragraph.  
hello  
Click me to hide paragraphs
```

- jQuery **val()** method sets or returns values of the selected elements

- `$(selector).val()`

- `$(selector).val(value);`

- jQuery **onClick()** method fires when **onclick** event occurs.

```
$(document).ready(function(){ // when whole document will be ready
    $("button").click(function(){
        $("p").hide(3000).text('new content').show();
    });
});
```

# jQuery Commonly Used Methods

Category	Description	Commonly used methods
DOM Manipulation	These methods manipulate DOM elements in some manner e.g. changing attribute, style attribute, adding and removing elements etc	after(), append(), attr(), before() etc
Traversing	These methods help in navigating from DOM element to another element in a parent child hierarchy e.g. finding ancestors, descendants or sibling element of a specified element.	children(), closest(), each(), first(), next(), filter(), parent(), siblings(),
CSS	These methods get and set css related properties of elements.	addClass(), css(), hasClass(), removeClass(), toggleClass()
Attributes	These methods get and set DOM attributes of elements.	attr(), html(), removeAttr(), prop(), val(),
Events	These methods are used to handle DOM or JavaScript events.	bind(), blur(), change(), click(), dblclick(), focus(), keyup(), keydown(),

Category	Description	Commonly used methods
Effects	These methods are used to add animation to elements.	animate(), fadeIn(), fadeOut(), hide(), show(), stop(),
Dimensions	These methods are used to get and set the CSS dimensions for the various properties.	height(), width(), innerHeight(), innerWidth(),
Forms	These methods and event handlers handle forms and their various elements.	blur(), change(), val(), submit(),
Ajax	These methods allow Ajax functionalities with jQuery	get(), getJson(), post(), load(),

# Useful Reference Links

- <https://www.javatpoint.com/jquery-tutorial>
- <https://www.tutorialsteacher.com/jquery/jquery-methods>