

jQuery is a JavaScript library that allows web developers to add extra functionality to their websites. It is open source and provided for free

how to add jQuery to Your Web Pages ?:

There are several ways to start using jQuery on your web site. You can:

(1)Download the jQuery library from [jQuery.com](https://jquery.com)

(2)Include jQuery from a CDN, like Google

Downloading jQuery :

There are two versions of jQuery available for downloading:

- Production version - this is for your live website because it has been minified and compressed
- Development version - this is for testing and development (uncompressed and readable code)

Both versions can be downloaded from [jQuery.com](https://jquery.com).

The jQuery library is a single JavaScript file, and you reference it with the HTML `<script>` tag (notice that the `<script>` tag should be inside the `<head>` section):

```
<head>
<script src="jquery-1.12.2.min.js"></script>
</head>
```

Tip: Place the downloaded file in the same directory as the pages where you wish to use it.

Note Do you wonder why we do not have `type="text/javascript"` inside the `<script>` tag?

This is not required in HTML5. JavaScript is the default

scripting language in HTML5 and in all modern browsers!

jQuery CDN :

If you don't want to download and host jQuery yourself, you can include it from a CDN (Content Delivery Network).

Both Google and Microsoft host jQuery.

To use jQuery from Google or Microsoft, use one of the following:

Google CDN:

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.2/jquery.min.js"></script>
```

```
</head>
```

Try it Yourself »

Microsoft CDN:

```
<head>
```

```
<script src="http://ajax.aspnetcdn.com/ajax/jquery/jquery-1.12.2.min.js"></script>
```

```
</head>
```

jQuery Syntax :

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 uses CSS syntax to select elements.

The Document Ready Event

You might have noticed that

all jQuery methods in our examples, are inside a document ready event:

```
$(document).ready(function(){
```

```
    // jQuery methods go here...
```

```
});
```

This is to prevent any jQuery code from running before the document is finished loading (is ready).

It is good practice to wait for the document to be fully loaded and ready before working with it. This also allows you to have your JavaScript code before the body of your document, in the head section.

Here are some examples of actions that can fail if methods are run before the document is fully loaded:

Trying to hide an element that is not created yet

Trying to get the size of an image that is not loaded yet

Tip: The jQuery team has also created an even shorter method for the document ready event:

```
$(function(){
```

```
    // jQuery methods go here...
```

```
});
```

The JQUERY Selector:

Selectors are used to select one or more HTML elements using jQuery. Once an element is selected then we can perform various operations on that selected element.

The `$()` factory function

jQuery selectors start with the dollar sign and parentheses – `$()`. The factory function `$()` makes use of following three building blocks while selecting elements in a given document –

| S.N. | Selector & Description |
|------|--|
| 1 | Tag Name Represents a tag name available in the DOM. For example <code>\$('p')</code> selects all paragraphs <code><p></code> in the document. |
| 2 | Tag ID Represents a tag available with the given ID in the DOM. For example <code>\$('#some-id')</code> selects the single element in the document that has an ID of <code>some-id</code> . |
| 3 | Tag Class Represents a tag available with the given class in the DOM. For example <code>\$('.some-class')</code> selects all elements in the document that have a class of <code>some-class</code> . |

jQuery selectors allow you to select and manipulate HTML element(s).

jQuery selectors are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, values of attributes and much more. It's based on the existing CSS Selectors, and in addition, it has some own custom selectors.

All selectors in jQuery start with the dollar sign and parentheses: `$()`.

(1)TAG Name (The element) Selector:

The jQuery element selector selects elements based on the element name.

You can select all `<p>` elements on a page like this:

```
$("p")
```

When a user clicks on a button, all <p> elements will be hidden:

Example :

```
<!DOCTYPE html>
<html>
<head>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.2/jquery.min.js"> </s
cript>
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("p").hide();
    });
});
</script>
</head>
<body>

<h2>This is a heading</h2>

<p>This is a paragraph.</p>
<p>This is another paragraph.</p>

<button>Click me to hide paragraphs</button>
```

```
</body>
```

```
</html>
```

(2)The #id Selector :

The jQuery #id selector uses the id attribute of an HTML tag to find the specific element.

An id should be unique within a page, so you should use the #id selector when you want to find a single, unique element.

To find an element with a specific id, write a hash character, followed by the id of the HTML element:

```
$("#test")
```

Example :

When a user clicks on a button, the element with id="test" will be hidden:

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.2/jquery.min.js" > </s
cript>
<script>
$(document).ready(function(){
    $("button").click(function(){
        $("#test").hide();
    });
});
</script>
</head>
<body>

<h2>This is a heading</h2>

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

<button> Click me</button>

</body>
</html>
```

(3)The .class Selector :

The jQuery class selector finds elements with a specific class.

To find elements with a specific class, write a period character, followed by the name of the class:

```
$(".test")
```

Example :

When a user clicks on a button, the elements with class="test" will be hidden:

```
<!DOCTYPE html>
<html>
<head>
<script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.2/jquery.min.js"> </s
cript>
<script>
$(document).ready(function(){
    $("button").click(function(){
        $(".test").hide();
    });
});
</script>
</head>
<body>
```

```
<h2 class="test">This is a heading</h2>
```

```
<p class="test">This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

```
<button>Click me</button>
```

```
</body>
```

```
</html>
```

Jquery Hid and Show

OM MAURYA SIR 04:08 

```
<html>
```

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
```

```
<script>
```

```
$(document).ready(function(){
```

```
  $("#button1").click(function(){
```

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

```
  });
```

```
  $("#button2").click(function(){
```

```
    $("p").show();
```

```
  });
```

```
});
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<p>If you click on the "Hide" button, I will disappear.</p>
```

```
<button id="button1">Hide</button>
```

```
<button id="button2">Show</button>
```

```
</body>
</html>
```

jQuery Fading Methods :-

With jQuery you can fade an element in and out of visibility.

jQuery has the following fade methods:

```
fadeIn()
fadeOut()
fadeToggle()
fadeTo()
```

jQuery fadeIn() Method

The jQuery fadeIn() method is used to fade in a hidden element.

Syntax:-

```
$(selector).fadeIn(speed,callback);
```

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#div1").fadeIn();
    $("#div2").fadeIn("slow");
    $("#div3").fadeIn(3000);
  });
});
</script>
</head>
<body>
```

```
<p>Demonstrate fadeIn() with different parameters.</p>
```

```
<button>Click to fade in boxes</button><br><br>
```

```
<div id="div1" style="width:80px;height:80px;display:none;background-color:red;"></div><br>
<div id="div2" style="width:80px;height:80px;display:none;background-color:green;"></div><br>
<div id="div3" style="width:80px;height:80px;display:none;background-color:blue;"></div>

</body>
</html>
```

Jquery Sliding

OM MAURYA SIR 04:18 

jQuery Sliding Methods:-

With jQuery you can create a sliding effect on elements.

jQuery has the following slide methods:

slideDown()

slideUp()

slideToggle()

(1)slideDown() example:-

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("#flip").click(function(){
    $("#panel").slideDown("slow");
```

```

    });
});
</script>
<style>
#panel, #flip {
padding: 5px;
text-align: center;
background-color: #e5eccc;
border: solid 1px #c3c3c3;
}

#panel {
padding: 50px;
display: none;
}
</style>
</head>
<body>

<div id="flip">Click to slide down panel</div>
<div id="panel">Hello world!</div>

</body>
</html>

```

(2)slideUP() example:-

```

<html>

<head>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>

```

```
<script>

$(document).ready(function(){

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

    $("#panel").slideUp("slow");

  });

});

</script>

<style>

#panel, #flip {

  padding: 5px;

  text-align: center;

  background-color: #e5eccc;

  border: solid 1px #c3c3c3;

}

#panel {

  padding: 50px;

}

</style>

</head>

<body>

<div id="flip">Click to slide up panel</div>
```

```
<div id="panel">Hello world!</div>
```

```
</body>
```

```
</html>
```

(3)SlideToggle() example:-

```
<html>
```

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
```

```
<script>
```

```
$(document).ready(function(){
```

```
  $("#flip").click(function(){
```

```
    $("#panel").slideToggle("slow");
```

```
  });
```

```
});
```

```
</script>
```

```
<style>
```

```
#panel, #flip {
```

```
  padding: 5px;
```

```
  text-align: center;
```

```
  background-color: #e5eccc;
```

```
  border: solid 1px #c3c3c3;
```

```
}
```

```
#panel {
```

```
  padding: 50px;
```

```
  display: none;
```

```
}
```

```
</style>
</head>
<body>

<div id="flip">Click to slide down panel</div>
<div id="panel">Hello world!</div>

</body>
</html>
```

jQuery Animations

OM MAURYA SIR 04:25 

jQuery Animations - The animate() Method:-

The jQuery animate() method is used to create custom animations.

Syntax:

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

Note:- By default, all HTML elements have a static position, and cannot be moved. To manipulate the position, remember to first set the CSS position property of the element to relative, fixed, or absolute!

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("div").animate({left: '250px'});
  });
});
```



```
});
</script>
</head>
<body>

<button>Start Animation</button>

<p>Animate example </p>

<div style="background:#98bf21;height:100px;width:100px;position:absolute;"></div>

</body>
</html>
```

Juquery stop

OM MAURYA SIR 04:28 

jQuery stop() Method:-

The jQuery stop() method is used to stop an animation or effect before it is finished.

The stop() method works for all jQuery effect functions, including sliding, fading and custom animations.

Syntax:

```
$(selector).stop(stopAll,goToEnd);
```

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("#flip").click(function(){
```

```
    $("#panel").slideDown(5000);
  });
  $("#stop").click(function(){
    $("#panel").stop();
  });
});
</script>
<style>
#panel, #flip {
  padding: 5px;
  font-size: 18px;
  text-align: center;
  background-color: #555;
  color: white;
  border: solid 1px #666;
  border-radius: 3px;
}

#panel {
  padding: 50px;
  display: none;
}
</style>
</head>
<body>

<button id="stop">Stop sliding</button>

<div id="flip">Click to slide down panel</div>
<div id="panel">Hello world!</div>

</body>
</html>
```

jQuery Callback Functions

OM MAURYA SIR 04:34 

jQuery Callback Functions:-

JavaScript statements are executed line by line. However, with effects, the next line of code can be run even though the effect is not finished. This can create errors.

To prevent this, you can create a callback function.

A callback function is executed after the current effect is finished.

Typical syntax: `$(selector).hide(speed,callback);`

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("p").hide("slow", function(){
      alert("The paragraph is now hidden");
    });
  });
});
</script>
</head>
<body>

<button>Hide</button>

<p>This is a paragraph with little content.</p>

</body>

</html>
```

jQuery Method Chaining

OM MAURYA SIR 04:39 

jQuery Method Chaining:-

Until now we have been writing jQuery statements one at a time (one after the other).

However, there is a technique called chaining, that allows us to run multiple jQuery commands, one after the other, on the same element(s).

Tip: This way, browsers do not have to find the same element(s) more than once.

To chain an action, you simply append the action to the previous action.

The following example chains together the `css()`, `slideUp()`, and `slideDown()` methods. The "para1" element first changes to red, then it slides up, and then it slides down:

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("button").click(function(){
    $("#para1").css("color", "red").slideUp(2000).slideDown(2000);
  });
});
</script>
</head>
<body>

<p id="para1">jQuery method chaining example !!</p>

<button>Click me</button>
```

```
</body>
```

```
</html>
```

Juquery Event

OM MAURYA SIR 04:51 

(1)Click Event example:-

```
<html>
```

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
```

```
<script>
```

```
$(document).ready(function(){
```

```
  $("p").click(function(){
```

```
    alert("The paragraph was clicked.");
```

```
  });
```

```
});
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<p>Click on this paragraph.</p>
```

```
</body>
```

```
</html>
```

(2)Mouseenter Event Example :-

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("p").mouseenter(function(){
    $("p").css("background-color", "yellow");
  });
  $("p").mouseleave(function(){
    $("p").css("background-color", "lightgray");
  });
});
</script>
</head>
<body>

<p>Move the mouse pointer over this paragraph.</p>

</body>
</html>
```

(3)Mouseleave example:-

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("p").mouseenter(function(){
    $("p").css("background-color", "yellow");
```

```
});  
  
$("p").mouseleave(function(){  
  
    $("p").css("background-color", "lightgray");  
  
});  
  
});  
  
</script>  
  
</head>  
  
<body>  
  
<p>Move the mouse pointer over this paragraph.</p>  
  
  
  
</body>  
  
</html>
```

(4)Hover event example:-

The hover() method specifies two functions to run when the mouse pointer hovers over the selected elements.

This method triggers both the mouseenter and mouseleave events.

Note: If only one function is specified, it will be run for both the mouseenter and mouseleave events.

Syntax:-

\$(selector).hover(inFunction,outFunction)

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $("p").hover(function(){
    $("#p1").css("background-color", "yellow");
  }, function(){
    $("#p1").css("background-color", "pink");
  });
});
</script>
</head>
<body>

<p id="p1">Hover the mouse pointer over this paragraph.</p>

</body>
</html>
```

(5)Jquery Change Event:-

```
<html>
<head>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
<script>
$(document).ready(function(){
  $(".field").change(function(){
    $(this).css("background-color", "#D6D6FF");
  });
});
</script>
```



```
</head>
```

```
<body>
```

Course:

```
<select class="field" name="course">
```

```
  <option value="html">html</option>
```

```
  <option value="css">css</option>
```

```
</select>
```

```
<p>Select an option in the drop-down list.</p>
```

```
</body>
```

```
</html>
```

(6)Mouseover and mouseout event:-

```
<html>
```

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
```

```
<script>
```

```
$(document).ready(function(){
```

```
  $("p").mouseover(function(){
```

```
    $("p").css("background-color", "yellow");
```

```
  });
```

```
  $("p").mouseout(function(){
```

```
    $("p").css("background-color", "lightgray");
```

```
  });
```

```
});
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<p>Move the mouse pointer over this paragraph.</p>
```

```
</body>
```

```
</html>
```

(7)Submit event example:-

```
<html>
```

```
<head>
```

```
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
```

```
<script>
```

```
$(document).ready(function(){
```

```
  $("form").submit(function(){
```

```
    alert("Submitted");
```

```
  });
```

```
});
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<form action="">
```

```
  First name: <input type="text" name="FirstName" value="Mickey"><br>
```

```
  Last name: <input type="text" name="LastName" value="Mouse"><br>
```

```
  <input type="submit" value="Submit">
```

```
</form>
```

```
</body>
```

```
</html>
```