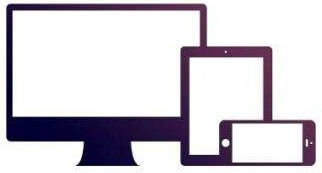
What is Bootstrap

* Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.
* It is absolutely free to download and use.
* It is a front-end framework used for easier and faster web development.
* It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.
* It can also use JavaScript plug-ins.
* It facilitates you to create responsive designs.



History of Bootstrap

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter.It was released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub.

Why use Bootstrap

Following are the main advantage of Bootstrap:

* It is very easy to use. Anybody having basic knowledge of HTML and CSS can use Bootstrap.
* It facilitates users to develop a responsive website.
* It is compatible on most of browsers like Chrome, Firefox, Internet Explorer, Safari and Opera etc.

What is a responsive website

A website is called responsive website which can automatically adjust itself to look good on all devices, from smart phones to desktops etc.

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What Bootstrap package contains

**Scaffolding:** Bootstrap provides a basic structure with Grid System, link styles, and background.

**CSS:** Bootstrap comes with the feature of global CSS settings, fundamental HTML elements style and an advanced grid system.

**Components:** Bootstrap contains a lot of reusable components built to provide iconography, dropdowns, navigation, alerts, pop-overs, and much more.

**JavaScript Plugins:** Bootstrap also contains a lot of custom jQuery plugins. You can easily include them all, or one by one.

**Customize:** Bootstrap components are customizable and you can customize Bootstrap's components, LESS variables, and jQuery plugins to get your own style.

What is Bootstrap 4?

Bootstrap is the newest and latest version of Bootstrap. It is the most popular HTML, CSS, JavaScript framework for developing responsive, mobile first websites.

Bootstrap 3 vs. Bootstrap 4

Bootstrap 4 has some new components, faster stylesheet, more buttons, effects and more responsiveness.

Bootstrap 4 supports some the latest, stable releases of all major browsers and platforms.

Note: Internet Explorer 9 and down is not supported by Bootstrap 4. Although Internet Explorer 8-9 supported Bootstrap 3. So, if you have Internet Explorer 8-9, you should use Bootstrap 3. Bootstrap 3 is the most stable version of Bootstrap, and it is still supported by the team for critical bugfixes and documentation changes.

Is Bootstrap Best?

Bootstrap is more than efficient to create a responsive and mobile first website but it is not the best in the industry. There is an alternative of Bootstrap named W3.CSS which is smaller, faster, and easier to use.

First Bootstrap Example

**Add the HTML 5 doctype:** Bootstrap uses HTML elements and CSS properties, so you have to add the HTML 5 doctype at the beginning of the page with lang attribute and correct character set.

**Ex:**

1. <!DOCTYPE html**>**
2. **<html** lang="en"**>**
3. **<head><meta** http-equiv="Content-Type" content="text/html; charset=windows-1252"**>**
5. **<title>**Any title**</title>**
6. **</head>**
7. **<body>**
8. //write code
9. **</body>**
10. **</html>**

**Bootstrap is mobile friendly:** Bootstrap 3 is designed to be responsive to mobile devices.

Mobile-first styles are part of the core framework of Bootstrap.You have to add the following <meta> tag inside the <head> element for proper rendering and touch zooming:



1. **<meta** name="viewport" content="width=device-width, initial-scale=1"**>**

**Note:** The **"width=device-width"**part is used to set the width of the page to follow the screen-width of the device (vary according to the devices).

The **initial-scale=1** part is used to set the initial zoom level when the page is first loaded by the browser.

**Containers:** container is used to wrap the site contents. There are two container classes.

* The**.container class** provides a responsive fixed width container.
* The **.container-fluid** class provides a full width container, spanning the entire width of the viewport.

Note: A container cannot be placed inside a container.

First Bootstrap Example (with responsive fixed width container)

1. <!DOCTYPE html**>**
2. **<html** lang="en"**>**
3. **<head>**
4. **<title>**This is a Bootstrap example**</title>**
6. **<meta** name="viewport" content="width=device-width, initial-scale=1"**>**
7. **<link** rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.min.css"**>**
8. **</head>**
9. **<body>**
10. **<div** class="container"**>**
11. **<h1>** First Bootstrap web page**</h1>**
12. **<p>**Write your text here..**</p>**
13. **</div>**
15. **<script** src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js"**></script>**
16. **<script** src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/js/bootstrap.min.js"**></script>**
17. **</body>**
18. **</html>**

Bootstrap Container

In Bootstrap, container is used to set the content's margins dealing with the responsive behaviors of your layout. It contains the row elements and the row elements are the container of columns (known as grid system).

The **container class** is used to create boxed content.

There are two container classes in Bootstrap:

1. container
2. container-fluid

**See the basic layout of a container:**

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1. **<html>**
2. **<body>**
3. **<div** class="container"**>**
4. **<div** class="row"**>**
5. **<div** class="col-md-xx"**></div>**
6. ...
7. **</div>**
8. **<div** class="row"**>**
9. **<div** class="col-md-xx"**></div>**
10. ...
11. **</div>**
12. **</div>**
13. **</body>**
14. **</html>**

Bootstrap container example

1. <!DOCTYPE html**>**
2. **<html** lang="en"**>**
3. **<head>**
4. **<title>**Job**</title>**
5. **<link** rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.min.css"**/>**
6. **</head>**
7. **<body>**
9. **<div** class="container"**>**
10. **<h1>**Container**</h1>**
11. **<p>**container content**</p>**
12. **</div>**
14. **<div** class="container-fluid"**>**
15. **<h1>**Container-fluid**</h1>**
16. **<p>**container-fluid content**</p>**
17. **</div>**
19. **<script** src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.3/jquery.min.js"**></script>**
20. **<script** src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.5/js/bootstrap.min.js"**></script>**
21. **</body>**
22. **</html>**

jQuery Tutorial



jQuery tutorial for beginners and professionals provides deep knowledge of jQuery technology. Our jQuery tutorial will help you to learn jQuery fundamentals, example, selectors, events, effects, traversing, CSS and attributes.

What is jQuery

* jQuery is a small and lightweight JavaScript library.
* jQuery is cross-platform.
* jQuery means "write less do more".
* jQuery simplifies AJAX call and DOM manipulation.

jQuery Example

In this tutorial, you will get a lot of jQuery examples to understand the topic well. Let's see a simple jQuery example.

*File: firstjquery.html*

1. <!DOCTYPE html>
2. <html>
3. <head>
4. <title>First jQuery Example</title>
5. <script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js">
6. </script>
7. <script type="text/javascript" language="javascript">
8. $(document).ready(function() {
9. $("p").css("background-color", "pink");
10. });
11. </script>
12. </head>
13. <body>
14. <p>This is first paragraph.</p>
15. <p>This is second paragraph.</p>
16. <p>This is third paragraph.</p>
17. </body>
18. </html>

[**Test it Now**](https://www.javatpoint.com/oprweb/test.jsp?filename=jquerytut1)

Output:

This is first paragraph.

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This is second paragraph.

This is third paragraph.

Prerequisite

Before learning jQuery, you must have the basic knowledge of JavaScript.

Audience

Our jQuery tutorial is designed to help beginners and professionals.

Problem

We assure that you will not find any problem in this jQuery tutorial. But if there is any mistake, please post the problem in contact form.

jQuery

jQuery is a fast, small, cross-platform and feature-rich JavaScript library. It is designed to simplify the client-side scripting of HTML. It makes things like HTML document traversal and manipulation, animation, event handling, and AJAX very simple with an easy-to-use API that works on a lot of different type of browsers.

The main purpose of jQuery is to provide an easy way to use JavaScript on your website to make it more interactive and attractive. It is also used to add animation.

What is jQuery

jQuery is a small, light-weight and fast JavaScript library. It is cross-platform and supports different types of browsers. It is also referred as ?write less do more? because it takes a lot of common tasks that requires many lines of JavaScript code to accomplish, and binds them into methods that can be called with a single line of code whenever needed. It is also very useful to simplify a lot of the complicated things from JavaScript, like AJAX calls and DOM manipulation.

* jQuery is a small, fast and lightweight JavaScript library.
* jQuery is platform-independent.
* jQuery means "write less do more".
* jQuery simplifies AJAX call and DOM manipulation.

jQuery Features

Following are the important features of jQuery.

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* HTML manipulation
* DOM manipulation
* DOM element selection
* CSS manipulation
* Effects and Animations
* Utilities
* AJAX
* HTML event methods
* JSON Parsing
* Extensibility through plug-ins

Why jQuery is required

Sometimes, a question can arise that what is the need of jQuery or what difference it makes on bringing jQuery instead of AJAX/ JavaScript? If jQuery is the replacement of AJAX and JavaScript? For all these questions, you can state the following answers.

* It is very fast and extensible.
* It facilitates the users to write UI related function codes in minimum possible lines.
* It improves the performance of an application.
* Browser's compatible web applications can be developed.
* It uses mostly new features of new browsers.

So, you can say that out of the lot of JavaScript frameworks, jQuery is the most popular and the most extendable. Many of the biggest companies on the web use jQuery.

Some of these companies are:

* Microsoft
* Google
* IBM
* Netflix

What should you know before starting to learn jQuery?

It is always advised to a fresher to learn the basics of web designing before starting to learn jQuery. He should learn HTML, CSS and JavaScript first. But, if you belong to a technical background, it is up to you.

If you are a fresher and want to study these subjects first.

jQuery Example

jQuery is developed by Google. To create the first jQuery example, you need to use JavaScript file for jQuery. You can download the jQuery file from jquery.com or use the absolute URL of jQuery file.

In this jQuery example, we are using the absolute URL of jQuery file. The jQuery example is written inside the script tag.

Let's see a simple example of jQuery.

*File: firstjquery.html*

1. <!DOCTYPE html**>**
2. **<html>**
3. **<head>**
4. **<title>**First jQuery Example**</title>**
5. **<script** type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"**>**
6. **</script>**
7. **<script** type="text/javascript" language="javascript"**>**
8. $(document).ready(function() {
9. $("p").css("background-color", "cyan");
10. });
11. **</script>**
12. **</head>**
13. **<body>**
14. **<p>**The first paragraph is selected.**</p>**
15. **<p>**The second paragraph is selected.**</p>**
16. **<p>**The third paragraph is selected.**</p>**
17. **</body>**
18. **</html>**

[**Test it Now**](https://www.javatpoint.com/oprweb/test.jsp?filename=jqueryexample1)

Output:

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The first paragraph is selected.

The second paragraph is selected.

The third paragraph is selected.

$(document).ready() and $()

The code inserted between $(document).ready() is executed only once when page is ready for JavaScript code to execute.

In place of $(document).ready(), you can use shorthand notation $() only.

1. $(document).ready(function() {
2. $("p").css("color", "red");
3. });

The above code is equivalent to this code.

1. $(function() {
2. $("p").css("color", "red");
3. });

Let's see the full example of jQuery using shorthand notation $().

*File: shortjquery.html*

1. <!DOCTYPE html**>**
2. **<html>**
3. **<head>**
4. **<title>**Second jQuery Example**</title>**
5. **<script** type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js"**>**
6. **</script>**
7. **<script** type="text/javascript" language="javascript"**>**
8. $(function() {
9. $("p").css("color", "red");
10. });
11. **</script>**
12. **</head>**
13. **<body>**
14. **<p>**The first paragraph is selected.**</p>**
15. **<p>**The second paragraph is selected.**</p>**
16. **<p>**The third paragraph is selected.**</p>**
17. **</body>**
18. **</html>**

[**Test it Now**](https://www.javatpoint.com/oprweb/test.jsp?filename=jqueryexample2)

Output:

The first paragraph is selected.

The second paragraph is selected.

The third paragraph is selected.

function() { $("p").css("background-color", "cyan"); }

It changes the background-color of all <p> tag or paragraph to cyan.

jQuery Selectors

jQuery Selectors are used to select and manipulate HTML elements. They are very important part of jQuery library.

With jQuery selectors, you can find or select HTML elements based on their id, classes, attributes, types and much more from a DOM.

In simple words, you can say that selectors are used to select one or more HTML elements using jQuery and once the element is selected then you can perform various operation on that.

All jQuery selectors start with a dollor sign and parenthesis e.g. $(). It is known as the factory function.

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The $() factory function

Every jQuery selector start with thiis sign $(). This sign is known as the factory function. It uses the three basic building blocks while selecting an element in a given document.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Selector** | **Description** |
| 1) | Tag Name: | It represents a tag name available in the DOM. For example: $('p') selects all paragraphs'p'in the document. |
| 2) | Tag ID: | It represents a tag available with a specific ID in the DOM. For example: $('#real-id') selects a specific element in the document that has an ID of real-id. |
| 3) | Tag Class: | It represents a tag available with a specific class in the DOM. For example: $('real-class') selects all elements in the document that have a class of real-class. |

Let's take a simple example to see the use of Tag selector. This would select all the elements with a tag name

and the background color is set to "pink".

*File: firstjquery.html*

1. <!DOCTYPE html>
2. <html>
3. <head>
4. <title>First jQuery Example</title>
5. <script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/jquery/2.1.3/jquery.min.js">
6. </script>
7. <script type="text/javascript" language="javascript">
8. $(document).ready(function() {
9. $("p").css("background-color", "pink");
10. });
11. </script>
12. </head>
13. <body>
14. <p>This is first paragraph.</p>
15. <p>This is second paragraph.</p>
16. <p>This is third paragraph.</p>
17. </body>
18. </html>

[**Test it Now**](https://www.javatpoint.com/oprweb/test.jsp?filename=jquerytut1)

Output:

This is first paragraph.

This is second paragraph.

This is third paragraph.

Note: 1. All of the above discussed selectors can be used alone or with the combination of other selectors.

Note: 2. If you have any confliction with theuse of dollor sign $ in any JavaScript library then you can use jQuery() function instead of factory function $(). The factory function $() and the jQuery function is the same.

How to use Selectors

The jQuery selectors can be used single or with the combination of other selectors. They are required at every steps while using jQuery. They are used to select the exact element that you want from your HTML document.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Selector** | **Description** |
| 1) | Name: | It selects all elements that match with the given element name. |
| 2) | #ID: | It selects a single element that matches with the given id. |
| 3) | .Class: | It selects all elements that matches with the given class. |
| 4) | Universal(\*) | It selects all elements available in a DOM. |
| 5) | Multiple Elements A,B,C | It selects the combined results of all the specified selectors A,B and C. |

Different jQuery Selectors

|  |  |  |
| --- | --- | --- |
| **Selector** | **Example** | **Description** |
| \* | $("\*") | It is used to select all elements. |
| #id | $("#firstname") | It will select the element with id="firstname" |
| .class | $(".primary") | It will select all elements with class="primary" |
| class,.class | $(".primary,.secondary") | It will select all elements with the class "primary" or "secondary" |
| element | $("p") | It will select all p elements. |
| el1,el2,el3 | $("h1,div,p") | It will select all h1, div, and p elements. |
| :first | $("p:first") | This will select the first p element |
| :last | $("p:last") | This will select he last p element |
| :even | $("tr:even") | This will select all even tr elements |
| :odd | $("tr:odd") | This will select all odd tr elements |
| :first-child | $("p:first-child") | It will select all p elements that are the first child of their parent |
| :first-of-type | $("p:first-of-type") | It will select all p elements that are the first p element of their parent |
| :last-child | $("p:last-child") | It will select all p elements that are the last child of their parent |
| :last-of-type | $("p:last-of-type") | It will select all p elements that are the last p element of their parent |
| :nth-child(n) | $("p:nth-child(2)") | This will select all p elements that are the 2nd child of their parent |
| :nth-last-child(n) | $("p:nth-last-child(2)") | This will select all p elements that are the 2nd child of their parent, counting from the last child |
| :nth-of-type(n) | $("p:nth-of-type(2)") | It will select all p elements that are the 2nd p element of their parent |
| :nth-last-of-type(n) | $("p:nth-last-of-type(2)") | This will select all p elements that are the 2nd p element of their parent, counting from the last child |
| :only-child | $("p:only-child") | It will select all p elements that are the only child of their parent |
| :only-of-type | $("p:only-of-type") | It will select all p elements that are the only child, of its type, of their parent |
| parent > child | $("div > p") | It will select all p elements that are a direct child of a div element |
| parent descendant | $("div p") | It will select all p elements that are descendants of a div element |
| element + next | $("div + p") | It selects the p element that are next to each div elements |
| element ~ siblings | $("div ~ p") | It selects all p elements that are siblings of a div element |
| :eq(index) | $("ul li:eq(3)") | It will select the fourth element in a list (index starts at 0) |
| :gt(no) | $("ul li:gt(3)") | Select the list elements with an index greater than 3 |
| :lt(no) | $("ul li:lt(3)") | Select the list elements with an index less than 3 |
| :not(selector) | $("input:not(:empty)") | Select all input elements that are not empty |
| :header | $(":header") | Select all header elements h1, h2 ... |
| :animated | $(":animated") | Select all animated elements |
| :focus | $(":focus") | Select the element that currently has focus |
| :contains(text) | $(":contains('Hello')") | Select all elements which contains the text "Hello" |
| :has(selector) | $("div:has(p)") | Select all div elements that have a p element |
| :empty | $(":empty") | Select all elements that are empty |
| :parent | $(":parent") | Select all elements that are a parent of another element |
| :hidden | $("p:hidden") | Select all hidden p elements |
| :visible | $("table:visible") | Select all visible tables |
| :root | $(":root") | It will select the document's root element |
| :lang(language) | $("p:lang(de)") | Select all p elements with a lang attribute value starting with "de" |
| [attribute] | $("[href]") | Select all elements with a href attribute |
| [attribute=value] | $("[href='default.htm']") | Select all elements with a href attribute value equal to "default.htm" |
| [attribute!=value] | $("[href!='default.htm']") | It will select all elements with a href attribute value not equal to "default.htm" |
| [attribute$=value] | $("[href$='.jpg']") | It will select all elements with a href attribute value ending with ".jpg" |
| [attribute|=value] | $("[title|='Tomorrow']") | Select all elements with a title attribute value equal to 'Tomorrow', or starting with 'Tomorrow' followed by a hyphen |
| [attribute^=value] | $("[title^='Tom']") | Select all elements with a title attribute value starting with "Tom" |
| [attribute~=value] | $("[title~='hello']") | Select all elements with a title attribute value containing the specific word "hello" |
| [attribute\*=value] | $("[title\*='hello']") | Select all elements with a title attribute value containing the word "hello" |
| :input | $(":input") | It will select all input elements |
| :text | $(":text") | It will select all input elements with type="text" |
| :password | $(":password") | It will select all input elements with type="password" |
| :radio | $(":radio") | It will select all input elements with type="radio" |
| :checkbox | $(":checkbox") | Itwill select all input elements with type="checkbox" |
| :submit | $(":submit") | It will select all input elements with type="submit" |
| :reset | $(":reset") | It will select all input elements with type="reset" |
| :button | $(":button") | It will select all input elements with type="button" |
| :image | $(":image") | It will select all input elements with type="image" |
| :file | $(":file") | It will select all input elements with type="file" |
| :enabled | $(":enabled") | Select all enabled input elements |
| :disabled | $(":disabled") | It will select all disabled input elements |
| :selected | $(":selected") | It will select all selected input elements |
| :checked | $(":checked") | It will select all checked input elements |