**Bootstrap**

**What is Bootstrap?**

* Bootstrap is a free front-end framework for faster and easier web development
* Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
* Bootstrap also gives you the ability to easily create responsive designs

Bootstrap is an open source product from Mark Otto and Jacob Thornton who, when it was initially released, were both employees at Twitter. There was a need to standardize the frontend toolsets of engineers across the company. In the launch blog post, Mark Otto introduced the project like this:

In the earlier days of Twitter, engineers used almost any library they were familiar with to meet front-end requirements. Inconsistencies among the individual applications made it difficult to scale and maintain them. Bootstrap began as an answer to these challenges and quickly accelerated during Twitter’s first Hackweek. By the end of Hackweek, we had reached a stable version that engineers could use across the company.

— Mark Otto

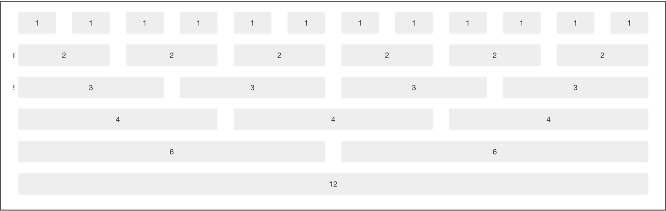
*https://dev.twitter.com/*

**What is Responsive Web Design?**

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

It allows for responsive web design and features a robust 12-column, 940px-wide grid.

**An example of the 12 possible columns**

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**Bootstrap Versions**

Bootstrap 5 (released 2021) is the newest version of Bootstrap (released 2013); with new components, faster stylesheet and more responsiveness.

Bootstrap 5 supports the latest, stable releases of all major browsers and platforms. However, Internet Explorer 11 and down is not supported.

The main differences between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to vanilla JavaScript instead of jQuery.

Note: Bootstrap 3 and Bootstrap 4 is still supported by the team for critical bugfixes and documentation changes, and it is perfectly safe to continue to use them. However, new features will NOT be added to them.

**Why Use Bootstrap?**

Advantages of Bootstrap:

* **Easy to use**: Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
* **Responsive features**: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
* **Mobile-first approach**: In Bootstrap, mobile-first styles are part of the core framework
* **Browser compatibility**: Bootstrap 5 is compatible with all modern browsers (Chrome, Firefox, Edge, Safari, and Opera). Note that if you need support for IE11 and down, you must use either BS4 or BS3.

**Where to Get Bootstrap 5?**

There are two ways to start using Bootstrap 5 on your own web site.

You can:

* Include Bootstrap 5 from a CDN
* Download Bootstrap 5 from getbootstrap.com

**Bootstrap 5 CDN**

If you don't want to download and host Bootstrap 5 yourself, you can include it from a CDN (Content Delivery Network).

jsDelivr provides CDN support for Bootstrap's CSS and JavaScript:

***MaxCDN:***

*<!-- Latest compiled and minified CSS -->*

*<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">*

*<!-- Latest compiled JavaScript -->*

*<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>*

**One advantage of using the Bootstrap 5 CDN:**

Many users already have downloaded Bootstrap 5 from jsDelivr when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time. Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

**JavaScript?**

Bootstrap 5 uses JavaScript for different components (like modals, tooltips, popovers etc). However, if you just use the CSS part of Bootstrap, you don't need them.

**Downloading Bootstrap 5**

If you want to download and host Bootstrap 5 yourself, go to https://getbootstrap.com/, and follow the instructions there.

**Bootstrap File Structure**

bootstrap/

├── css/

│   ├── bootstrap.css

│   ├── bootstrap.min.css

├── js/

│   ├── bootstrap.js

│   ├── bootstrap.min.js

├── img/

│   ├── glyphicons-halflings.png

│   ├── glyphicons-halflings-white.png

└── README.md

**Create Your First Web Page With Bootstrap 5**

1. Add the HTML5 doctype

Bootstrap 5 uses HTML elements and CSS properties that require the HTML5 doctype.

Always include the HTML5 doctype at the beginning of the page, along with the lang attribute and the correct title and character set:

*<!DOCTYPE html>*

*<html lang="en">*

*<head>*

*<title>Bootstrap 5 Example</title>*

*<meta charset="utf-8">*

*</head>*

*</html>*

2. Bootstrap 5 is mobile-first

Bootstrap 5 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

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

The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

3. Containers

Bootstrap 5 also requires a containing element to wrap site contents.

There are two container classes to choose from:

* 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

**Two Basic Bootstrap 5 Pages**

* The following example shows the code for a basic Bootstrap 5 page (with a responsive fixed width container):

Container Example

*<!DOCTYPE html>*

*<html lang="en">*

*<head>*

*<title>Bootstrap Example</title>*

*<meta charset="utf-8">*

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

*<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">*

*<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>*

*</head>*

*<body>*

*<div class="container">*

*<h1>My First Bootstrap Page</h1>*

*<p>This part is inside a .container class.</p>*

*<p>The .container class provides a responsive fixed width container.</p>*

*</div>*

*</body>*

*</html>*

* The following example shows the code for a basic Bootstrap 5 page (with a full width container):

**Container Fluid Example**

*<!DOCTYPE html>*

*<html lang="en">*

*<head>*

*<title>Bootstrap Example</title>*

*<meta charset="utf-8">*

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

*<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">*

*<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>*

*</head>*

*<body>*

*<div class="container-fluid">*

*<h1>My First Bootstrap Page</h1>*

*<p>This part is inside a .container-fluid class.</p>*

*<p>The .container-fluid class provides a full width container, spanning the entire width of the viewport.</p>*

*</div>*

*</body>*

*</html>*

Starter template

Be sure to have your pages set up with the latest design and development standards. That means using an HTML5 doctype and including a viewport meta tag for proper responsive behaviors. Put it all together and your pages should look like this:

<!doctype html>

<html lang="en">

<head>

<!-- Required meta tags -->

<meta charset="utf-8">

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

<!-- Bootstrap CSS -->

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTwFspd3yD65VohhpuuCOmLASjC" crossorigin="anonymous">

<title>Hello, world!</title>

</head>

<body>

<h1>Hello, world!</h1>

<!-- Optional JavaScript; choose one of the two! -->

<!-- Option 1: Bootstrap Bundle with Popper -->

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js" integrity="sha384-MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM" crossorigin="anonymous"></script>

<!-- Option 2: Separate Popper and Bootstrap JS -->

<!--

<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.2/dist/umd/popper.min.js" integrity="sha384-IQsoLXl5PILFhosVNubq5LC7Qb9DXgDA9i+tQ8Zj3iwWAwPtgFTxbJ8NT4GN1R8p" crossorigin="anonymous"></script>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.min.js" integrity="sha384-cVKIPhGWiC2Al4u+LWgxfKTRIcfu0JTxR+EQDz/bgldoEyl4H0zUF0QKbrJ0EcQF" crossorigin="anonymous"></script>

-->

</body>

</html>

**Typography**

## Bootstrap 5 Default Settings

Bootstrap 5 uses a default font-size of 1rem (16px by default), and its line-height is 1.5.

In addition, all <p> elements have margin-top: 0 and margin-bottom: 1rem (16px by default).

## <h1> - <h6>

Bootstrap 5 styles HTML headings (<h1> to <h6>)  with a bolder font-weight and a responsive font-size.

### **Example**

You can also use .h1 to .h6 classes on other elements to make them behave as headings if you want:

### **Example**

<p class="h1">h1 Bootstrap heading</p>  
<p class="h2">h2 Bootstrap heading</p>  
<p class="h3">h3 Bootstrap heading</p>  
<p class="h4">h4 Bootstrap heading</p>  
<p class="h5">h5 Bootstrap heading</p>  
<p class="h6">h6 Bootstrap heading</p>

## Display Headings

Display headings are used to stand out more than normal headings (larger font-size and lighter font-weight), and there are six classes to choose from: .display-1 to .display-6:

### **Example**

# **Display 1**

# **Display 2**

# **Display 3**

# **Display 4**

# **Display 5**

# **Display 6**

## <small>

In Bootstrap 5 the HTML <small> element (and the .small class) is used to create a smaller, secondary text in any heading:

### **Example**

## <mark>

Bootstrap 5 will style <mark> and .mark with a yellow background color and some padding:

### **Example**

Use the mark element to highlight text.

## <abbr>

Bootstrap 5 will style the HTML <abbr> element with a dotted border bottom and a cursor with question mark on hover:

### **Example**

The WHO was founded in 1948.

## <blockquote>

Add the .blockquote class to a <blockquote> when quoting blocks of content from another source. And when naming a source, like "from WWF's website", use the .blockquote-footer class:

### **Example**

## <dl>

Bootstrap 5 will style the HTML <dl> element in the following way:

### **Example**

## <code>

Bootstrap 5 will style the HTML <code> element in the following way:

### **Example**

## <kbd>

Bootstrap 5 will style the HTML <kbd> element in the following way:

### **Example**

## <pre>

Bootstrap 5 will style the HTML <pre> element in the following way:

### **Example**

## More Typography Classes

The Bootstrap 5 classes below can be added to style HTML elements further:

|  |  |  |
| --- | --- | --- |
| **Class** | **Description** | **Example** |
| .lead | Makes a paragraph stand out |  |
| .text-start | Indicates left-aligned text |  |
| .text-break | Prevents long text from breaking layout |  |
| .text-center | Indicates center-aligned text |  |
| .text-decoration-none | Removes the underline from a link |  |
| .text-end | Indicates right-aligned text |  |
| .text-nowrap | Indicates no wrap text |  |
| .text-lowercase | Indicates lowercased text |  |
| .text-uppercase | Indicates uppercased text |  |
| .text-capitalize | Indicates capitalized text |  |
| .initialism | Displays the text inside an <abbr> element in a slightly smaller font size |  |
| .list-unstyled | Removes the default list-style and left margin on list items (works on both <ul> and <ol>). This class only applies to immediate children list items (to remove the default list-style from any nested lists, apply this class to any nested lists as well) |  |
| .list-inline | Places all list items on a single line (used together with .list-inline-item on each <li> elements) |  |

# **Bootstrap 5 Colors**

## Text Colors

Bootstrap 5 has some contextual classes that can be used to provide "meaning through colors".

The classes for text colors are: .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body (default body color/often black) and .text-light:

### **Example**

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary text.

Dark grey text.

Body text.

Light grey text.

You can also add 50% opacity for black or white text with the .text-black-50 or .text-white-50 classes:

### **Example**

Black text with 50% opacity on white background

White text with 50% opacity on black background

## Background Colors

The classes for background colors are: .bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light.

### **Example**

The .bg-color classes above does not work well with text, or atleast then you have to specify a proper .text-color class to get the right text color for each background.

However, you can use the .text-bg-color classes and Bootstrap will automatically handle the appropriate text color for each background color:

### **Example**

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary background color.

Dark grey background color.

Light grey background color.

# **Bootstrap 5 Tables**

## Basic Table

A basic Bootstrap 5 table has a light padding and horizontal dividers.

The .table class adds basic styling to a table:

### <div class="container mt-3">

### <h2>Basic Table</h2>

### <p>The .table class adds basic styling (light padding and horizontal dividers) to a table:</p>

### <table class="table">

### <thead>

### <tr>

### <th>Firstname</th>

### <th>Lastname</th>

### <th>Email</th>

### </tr>

### </thead>

### <tbody>

### <tr>

### <td>Mary</td>

### <td>Doe</td>

### <td>mary@example.com</td>

### </tr>

### <tr>

### <td>John</td>

### <td>Loe</td>

### <td>john@example.com</td>

### </tr>

### <tr>

### <td>Xam</td>

### <td>Dooley</td>

### <td>xam@example.com</td>

### </tr>

### </tbody>

### </table>

### </div>

### **Example**

## Basic Table

The .table class adds basic styling (light padding and horizontal dividers) to a table:

| **Firstname** | **Lastname** | **Email** |
| --- | --- | --- |
| Mary | Doe | mary@example.com |
| John | Loe | john@example.com |
| Xam | Dooley | xam@example.com |

## Striped Rows

The .table-striped class adds zebra-stripes to a table:

### <table class="table table-striped">

### <thead>

### <tr>

### <th>Firstname</th>

### <th>Lastname</th>

### <th>Email</th>

### </tr>

### </thead>

### <tbody>

### <tr>

### <td>Mary</td>

### <td>Doe</td>

### <td>mary@example.com</td>

### </tr>

### <tr>

### <td>John</td>

### <td>Loe</td>

### <td>john@example.com</td>

### </tr>

### <tr>

### <td>Xam</td>

### <td>Dooley</td>

### <td>xam@example.com</td>

### </tr>

### </tbody>

### </table>

### **Example**

## Striped Rows

The .table-striped class adds zebra-stripes to a table:

| **Firstname** | **Lastname** | **Email** |
| --- | --- | --- |
| Mary | Doe | mary@example.com |
| John | Loe | john@example.com |
| Xam | Dooley | xam@example.com |

## Bordered Table

The .table-bordered class adds borders on all sides of the table and cells:

### **Example**

## Hover Rows

The .table-hover class adds a hover effect (grey background color) on table rows:

### **Example**

## Black/Dark Table

The .table-dark class adds a black background to the table:

### **Example**

## Dark Striped Table

Combine .table-dark and .table-striped to create a dark, striped table:

### **Example**

## Hoverable Dark Table

The .table-hover class adds a hover effect (grey background color) on table rows:

### **Example**

## Borderless Table

The .table-borderless class removes borders from the table:

### **Example**

## Contextual Classes

[Contextual classes](https://www.w3schools.com/bootstrap5/bootstrap_colors.php) can be used to color the whole table (<table>),  the table rows (<tr>) or table cells (<td>).

### **Example**

|  |  |  |
| --- | --- | --- |
| Default | Defaultson | def@somemail.com |
| Primary | Joe | joe@example.com |
| Success | Doe | john@example.com |
| Danger | Moe | mary@example.com |
| Info | Dooley | july@example.com |
| Warning | Refs | bo@example.com |
| Active | Activeson | act@example.com |
| Secondary | Secondson | sec@example.com |
| Light | Angie | angie@example.com |
| Dark | Bo | bo@example.com |

The contextual classes that can be used are:

| **Class** | **Description** |
| --- | --- |
| .table-primary | Blue: Indicates an important action |
| .table-success | Green: Indicates a successful or positive action |
| .table-danger | Red: Indicates a dangerous or potentially negative action |
| .table-info | Light blue: Indicates a neutral informative change or action |
| .table-warning | Orange: Indicates a warning that might need attention |
| .table-active | Grey: Applies the hover color to the table row or table cell |
| .table-secondary | Grey: Indicates a slightly less important action |
| .table-light | Light grey table or table row background |
| .table-dark | Dark grey table or table row background |

## Table Head Colors

You can also use any of the contextual classes to only add a background color to the table header:

### **Example**

## Small table

The .table-sm class makes the table smaller by cutting cell padding in half:

### **Example**

## Responsive Tables

The .table-responsive class adds a scrollbar to the table when needed (when it is too big horizontally):

### **Example**

<div class="table-responsive">  
  <table class="table">  
    ...  
  </table>  
</div>

You can also decide when the table should get a scrollbar, depending on the screen width:

| **Class** | **Screen width** |
| --- | --- |
| .table-responsive-sm | < 576px |
| .table-responsive-md | < 768px |
| .table-responsive-lg | < 992px |
| .table-responsive-xl | < 1200px |
| .table-responsive-xxl | < 1400px |

### **Example**

<div class="table-responsive-sm">  
  <table class="table">  
    ...  
  </table>  
</div>

# **Bootstrap 5 Cards**

## Cards

A card in Bootstrap 5 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.

#### **Bharat Map**

Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance.....

[Bharat Map](javascript:void(0))

## Basic Card

A basic card is created with the .card class, and content inside the card has a .card-body class:

Basic card

### **Example**

<div class="card">  
  <div class="card-body">Basic card</div>  
</div>

## Header and Footer

Header

Content

Footer

The .card-header class adds a heading to the card and the .card-footer class adds a footer to the card:

### **Example**

<div class="card">  
  <div class="card-header">Header</div>  
  <div class="card-body">Content</div>  
  <div class="card-footer">Footer</div>  
</div>

## Contextual Cards

To add a background color to the card, use contextual classes (.bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark and .bg-light.

### **Example**

Basic card

Primary card

Success card

Info card

Warning card

Danger card

Secondary card

Dark card

Light card

## Titles, text, and links

#### **Card title**

Some example text. Some example text.

[Card link](javascript:void(0)) [Another link](javascript:void(0))

Use .card-title to add card titles to any heading element. The .card-text class is used to remove bottom margins for a <p> element if it is the last child (or the only one) inside .card-body. The .card-link class adds a blue color to any link, and a hover effect.

### **Example**

<div class="card">  
  <div class="card-body">  
    <h4 class="card-title">Card title</h4>  
    <p class="card-text">Some example text. Some example text.</p>  
    <a href="#" class="card-link">Card link</a>  
    <a href="#" class="card-link">Another link</a>  
  </div>  
</div>

## Card Images

## 

#### **Bharat Map**

Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance.....

[Bharat Map](javascript:void(0))

#### **Bharat Map**

Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance.....

[Bharat Map](javascript:void(0))

****

Add .card-img-top or .card-img-bottom to an <img> to place the image at the top or at the bottom inside the card. Note that we have added the image outside of the .card-body to span the entire width:

### **Example**

<div class="card" style="width:400px">  
  <img class="card-img-top" src="India.webp" alt="Bharat Map">  
  <div class="card-body">  
    <h4 class="card-title">Bharat map</h4>  
    <p class="card-text"> Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance. ....</p>  
    <a href="#" class="btn btn-primary">Bharat Map</a>  
  </div>  
</div>

## Card Image Overlays

## 

#### **Bharat Map**

Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance. ....

[Bharat Map](javascript:void(0))

Turn an image into a card background and use .card-img-overlay to add text on top of the image:

### **Example**

<div class="card" style="width:500px">  
  <img class="card-img-top" src="India.webp" alt="Card image" style="width:100%">

<div class="card-img-overlay">

<h4 class="card-title">Bharat Map</h4>

<p class="card-text">Digital India aims to establish end to end geo-spatial electronics delivery systems as part of Mission Mode Projects in e-Governance domain and envisages "National GIS Mission" as core foundation of location based Electronic Delivery of Services for Planning & Governance. ....</p>

<a href="https://bharatmaps.gov.in/BharatMaps/Home/Map" class="btn btn-primary">Bharat Map</a>  
  </div>  
</div>