

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

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.

The Grid System

Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											

The grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

Make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available columns).

Grid Classes

The Bootstrap 5 grid system has six classes:

- `.col-` (extra small devices - screen width less than 576px)
- `.col-sm-` (small devices - screen width equal to or greater than 576px)
- `.col-md-` (medium devices - screen width equal to or greater than 768px)
- `.col-lg-` (large devices - screen width equal to or greater than 992px)
- `.col-xl-` (xlarge devices - screen width equal to or greater than 1200px)
- `.col-xxl-` (xxlarge devices - screen width equal to or greater than 1400px)

The classes above can be combined to create more dynamic and flexible layouts.

Basic Structure of a Bootstrap Grid:-



For 3 columns Layout :-

Column 1	Column 2	Column 3
Lorem ipsum dolor sit amet, consectetur adipiscing elit... Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...	Lorem ipsum dolor sit amet, consectetur adipiscing elit... Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...	Lorem ipsum dolor sit amet, consectetur adipiscing elit... Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...

Step 1:-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap 5 Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/css/bootstrap.min.css"
rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/js/bootstrap.bundle.min.js"></script>
</head>
```

Step 2:-

```
<body>
```

```
<div class="container ">
```

```
<div class="row">
```

```
<div class="col-sm-4">
```

```
<h3>Column 1</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-4">
```

```
<h3>Column 2</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-4">
```

```
<h3>Column 3</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

Step 3:- save this example1.html

And for 4 columns layout :-

Column 1	Column 2	Column 3	Column 4
Lorem ipsum dolor sit amet, consectetur adipiscing elit...	Lorem ipsum dolor sit amet, consectetur adipiscing elit...	Lorem ipsum dolor sit amet, consectetur adipiscing elit...	Lorem ipsum dolor sit amet, consectetur adipiscing elit...
Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...	Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...	Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...	Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...

Step 1:-

```
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<head>
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  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/css/bootstrap.min.css"
rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
```

Step 2:-

```
<div class="container ">
```

```
<div class="row">
```

```
<div class="col-sm-3">
```

```
<h3>Column 1</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-3">
```

```
<h3>Column 2</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-3">
```

```
<h3>Column 3</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-3">
```

```
<h3>Column 4</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

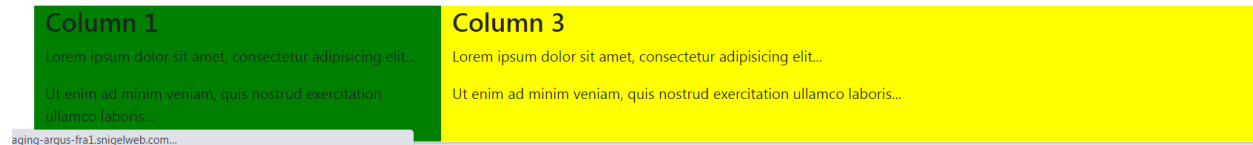
```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

For 2 unequal columns output :-



Step 1:-

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
<title>Bootstrap 5 Example</title>
```

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

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

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/css/bootstrap.min.css"
rel="stylesheet">
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.2/dist/js/bootstrap.bundle.min.js"></script>
```

```
</head>
```

Step 2:-

```
<body>
```

```
<div class="container">
```

```
<div class="row">
```

```
<div class="col-sm-4" style="background-color:green;">
```

```
<h3>Column 1</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
<div class="col-sm-8" style="background-color:yellow;">
```

```
<h3>Column 3</h3>
```

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit...</p>
```

```
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris...</p>
```

```
</div>
```

```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```