



Grid System:

- Bootstrap's grid system allows up to 12 columns across the page.
- If you do not want to use all 12 column individually, you can group the columns together to create wider columns
- Bootstrap's grid system is responsive, and the columns will re-arrange depending on the screen size: On a big screen it might look better with the content organized in three columns, but on a small screen it would be better if the content items were stacked on top of each other.

Grid Classes:

- xs (for phones - screens less than 768px wide)
- sm (for tablets - screens equal to or greater than 768px wide)
- md (for small laptops - screens equal to or greater than 992px wide)
- lg (for laptops and desktops - screens equal to or greater than 1200px wide)

Grid System Rules:

- Rows must be placed within a `.container` (fixed-width) or `.container-fluid` (full-width) for proper alignment and padding
- Use rows to create horizontal groups of columns

- Content should be placed within columns, and only columns may be immediate children of rows.

Basic Structure:

- `<div class="container">`

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

```
<div class="col-*-*"></div>
```

```
<div class="col-*-*"></div>
```

```
</div>
```

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

```
<div class="col-*-*"></div>
```

```
<div class="col-*-*"></div>
```

```
<div class="col-*-*"></div>
```

```
</div>
```

```
</div>
```

Variable Width Content:

- `<div class="container">`

```
<div class="row justify-content-md-center">
```

```
<div class="col col-lg-2">
```

```
1 of 3
```

```
</div>
```

```
<div class="col-md-auto">
```

```
Variable width content
```

```
</div>
```

```
<div class="col col-lg-2">
```

```
3 of 3

</div>

</div>

<div class="row">

  <div class="col">

    1 of 3

  </div>

  <div class="col-md-auto">

    Variable width content

  </div>

  <div class="col col-lg-2">

    3 of 3

  </div>

</div>

</div>
```

Components Usage:

- Components are free to use and fully responsive.
- Basic components of bootstrap are:
 - *Alerts
 - *Buttons
 - *Navbar
 - *Forms
 - *Tabs
 - *Jumbotron
 - *Carousel
- They provide a good user experience and user interactive web-page like pop-ups, dropdowns, its icon sits, etc.

Components of Bootstrap

1. Jumbotron	9. List group	17. Carousel
2. Alerts	10. Card	18. Toast
3. Buttons	11. Dropdown	19. Tooltip
4. Button group	12. Nav	20. Popovers
5. Badge	13. Navbar	21. Collapse
6. Progress Bar	14. Forms	22. Modal
7. Spinner	15. Input group	23. Pagination
8. Scrollspy	16. Breadcrumb	24. Media object

Navbar:

- Documentation and examples for Bootstrap's powerful, responsive navigation header, the navbar. Includes support for branding, navigation, and more, including support for our collapse plugin.
- Bootstrap usually works under a grid system.
It assumes that the complete screen size is 12 units.
- Based on the sizes of the different devices we use, devices are categorized accordingly.
 - MOBILE = -sm = small
 - TAB = -md = medium
 - DESKTOP = -lg = large
 - TV = -xl = extra large

Sample Code for navbar:

```
<nav class="navbar navbar-expand-lg navbar-light bg-light">
```

```
<a class="navbar-brand" href="#">Navbar</a>
```

```
<button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNavDropdown" aria-controls="navbarNavDropdown"
aria-expanded="false" aria-label="Toggle navigation">
```

```
</button>
```

```
<div class="collapse navbar-collapse" id="navbarNavDropdown">
```

```
<ul class="navbar-nav">
```

```
<li class="nav-item active">

  <a class="nav-link" href="#">Home <span class="sr-only">(current)</span></a>

</li>

<li class="nav-item">

  <a class="nav-link" href="#">Features</a>

</li>

<li class="nav-item">

  <a class="nav-link" href="#">Pricing</a>

</li>

<li class="nav-item dropdown">

  <a class="nav-link dropdown-toggle" href="#" id="navbarDropdownMenuLink"
  data-toggle="dropdown" aria-haspopup="true" aria-expanded="false">

    Dropdown link

  </a>

  <div class="dropdown-menu" aria-labelledby="navbarDropdownMenuLink">

    <a class="dropdown-item" href="#">Action</a>

    <a class="dropdown-item" href="#">Another action

  <a class="dropdown-item" href="#">Something else here</a  </div>

  </li>

</ul>

</div>

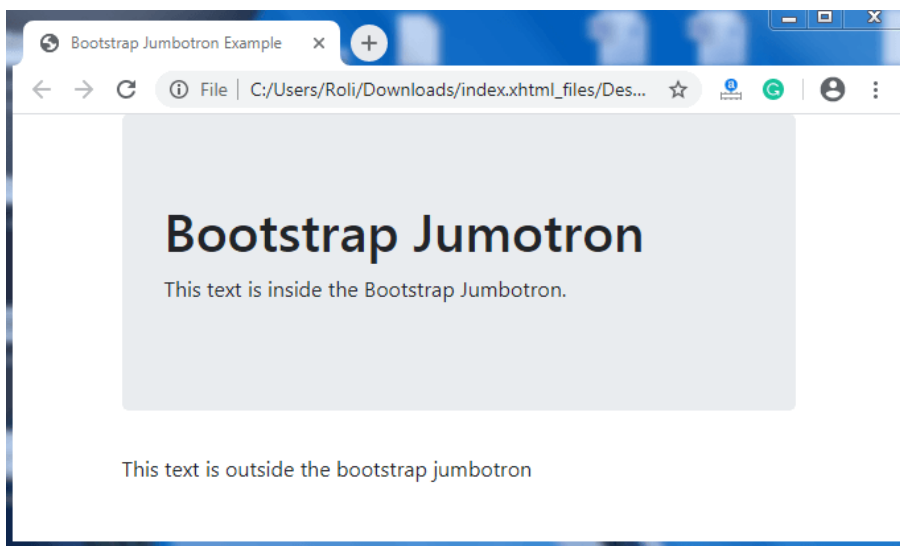
</nav>
```

Navbar Home Features Pricing Dropdown link ▾

Jumbotron:

This is basically a big box for calling extra attention to some special content or information.

Example:



Forms & Buttons Tag:

```
<form>
<div class="form-group">
  <label for="exampleFormControllInput1">Email address</label>
  <input type="email" class="form-control" id="exampleFormControllInput1"
placeholder="name@example.com">
</div>
<div class="form-group">
  <label for="exampleFormControlSelect1">Example select</label>
  <select class="form-control" id="exampleFormControlSelect1">
    <option>1</option>
    <option>2</option>
    <option>3</option>
    <option>4</option>
    <option>5</option>
  </select>
</div>
```

```
<div class="form-group">
  <label for="exampleFormControlSelect2">Example multiple select</label>
  <select multiple class="form-control" id="exampleFormControlSelect2">
    <option>1</option>
    <option>2</option>
    <option>3</option>
    <option>4</option>
    <option>5</option>
  </select>
</div>
<div class="form-group">
  <label for="exampleFormControlTextarea1">Example textarea</label>
  <textarea class="form-control" id="exampleFormControlTextarea1" rows="3"></textarea>
</div>
</form>
```

Email address

name@example.com

Example select

1

Example multiple select

1

2

3

4

Example textarea