

Module 8) Bootstrap Basic & Advanced

• What are the advantages of Bootstrap?

Bootstrap is Easy to Use: Bootstrap is very easy and quite simple to use for designing and development. Being a new framework there is a lot to learn from it. It can be used with CSS, LESS or SaaS etc.

An Alliance is Quite Easy: Bootstrap is a framework which is easily integrated with bulk frameworks uninterrupted with existing sites or the new one.

Fast and Time-Saving Framework: Bootstrap is an agile framework which is quite faster than other frameworks. It saves time due to its standard ready-made coding blocks, responsiveness, and cross-browser capabilities.

Reinforcement of Grids: One more recommendable feature is that bootstrap holds 12 column grid styles and supports responsiveness, counterbalance, and embedded elements.

Adhere to Basics: Bootstrap is a framework which holds base styling HTML elements like, tables, typography, buttons, forms, images, lists, and icons etc.

A Pack of JavaScript Fundamentals: Bootstrap supports Javascript Components so one don't require knowledge of scripting. It comprises JavaScript components like, tooltips, modal windows, alerts etc. to add functionalities easily.

Support is Amazing: Bootstrap is well-known for its big support community and agile response or online solution for the problems or queries. It also offers a great documentation along with examples and demo. It provides solutions to freshers and veterans alike.

Bootstrap is totally Customizable: It is developer friendly and can be customized as per the project requirements. Common CSS, utilities, Javascript Components, and components can compose the appearance to create ease for developers.

Agile Responsive: Bootstrap is a fully responsive platform supporting fluid grid layout. It crafts a mobile ready site smoothly and easily and sets web design as per the dimensions of the particular device.

Bootstrap's Consistency: Websites or mobile applications made with bootstrap technology can make you feel the awesome pairing of developers and designers ensuring consistency.

Frequent Updates: It provides regular updates and makes the whole eco-system hefty and robust according to the time.

• What is a Bootstrap Container, and how does it work?

Containers are the most basic layout element in Bootstrap and are required when using our default grid system. Containers are used to contain, pad, and (sometimes) center the content within them. While containers can be nested, most layouts do not require a nested container.

.container

.container-fluid

• What are the default Bootstrap text 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).

- **What do you know about the Bootstrap Grid System?**

Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content. It's built with flexbox and is fully responsive.

```
<div class="container">
  <div class="row">
    <div class="col-sm">
      One of three columns
    </div>
    <div class="col-sm">
      One of three columns
    </div>
    <div class="col-sm">
      One of three columns
    </div>
  </div>
</div>
```

- **What is the difference between Bootstrap 4 and Bootstrap 5**

BASIS OF	BOOTSTRAP 4	BOOTSTRAP 5
Grid System	It has 5 tier (xs, sm, md, lg, xl).	It has 6 tier (xs, sm, md, lg, xl, xxl).

Color	It has limited colors.	Extra colors added with the looks, A card improved color palette. there are various shades available to choose.
Jquery	It has jquery and all related plugins.	Jquery is removed and switched to vanilla JS with some working plugins
Internet Explorer	Bootstrap 4 supports both IE 10 and 11.	Bootstrap 5 doesn't support IE 10 and 11.
Form elements	Radio buttons, checkboxes have different look in different OS and browsers. The form uses whatever default browsers provide.	The look of form elements will not change, on different OS or browser. The forms can be customized and form controls can be added, they would not depend on browser.
Utilities API	We cannot modify utilities in bootstrap 4	Bootstrap 5 gave freedom to modify and also create our own utility

Gutter	We use .glutter with fontsize in px	We use .g* with fontsize in rem
Vertical Classes	Columns can be positioned relative	Columns cannot be positioned relative
Bootstrap Icons	Bootstrap 4 doesn't have its own SVG icons, we have to use font-awesome for icons.	Bootstrap 5 have its own SVG icons
Jumbotron	It supports.	It doesn't support jumbotron.
Card deck	The card deck is used to create a set of cards with equal width and height.	Card deck class is removed in bootstrap

• What is a Button Group, and what is the class for a basic Button Group?

Button groups allow multiple buttons to be stacked together on a single line. This is useful when you want to place items like alignment buttons together. You can add on optional JavaScript radio and checkbox style behavior with [Bootstrap Button Plugin](#)

btn-group	This class is used for a basic button group. Wrap a series of buttons with class .btn in .btn-group .	<pre> <div class = "btn-group"> <button type = "button" class = "btn btn- default">Button1</button> <button type = "button" class = "btn btn- default">Button2</button> </div> </pre>
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• How can you use Bootstrap to make thumbnails?

A lot of sites need a way to lay out images, videos, text, etc, in a grid, and Bootstrap has an easy way to do this with thumbnails. To create thumbnails using Bootstrap –

- Add an `<a>` tag with the class of **.thumbnail** around an image.
- This adds four pixels of padding and a gray border.
- On hover, an animated glow outlines the image.

The following example demonstrates a default thumbnail –

```

<div class = "row">
  <div class = "col-sm-6 col-md-3">
    <a href = "#" class = "thumbnail">
      <img src = "/bootstrap/images/kittens.jpg" alt = "Generic placeholder
thumbnail">
    </a>
  </div>

  <div class = "col-sm-6 col-md-3">
    <a href = "#" class = "thumbnail">

```

```
<img src = "/bootstrap/images/kittens.jpg" alt = "Generic placeholder
thumbnail">
</a>
</div>
```

```
<div class = "col-sm-6 col-md-3">
  <a href = "#" class = "thumbnail">
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  </a>
</div>
```

```
<div class = "col-sm-6 col-md-3">
  <a href = "#" class = "thumbnail">
    <img src = "/bootstrap/images/kittens.jpg" alt = "Generic placeholder
thumbnail">
  </a>
</div>
</div>
```

• In Bootstrap 4, what is flexbox?

Flexbox is used to quickly manage the layout, alignment and sizing of grid columns, navigation, components, and more with a full suite of responsive flexbox utilities.

You can also do complex implementations using custom CSS.

• How can one create an alert in Bootstrap?

Alerts provide a way to style messages to the user. They provide contextual feedback messages for typical user actions.

Alert boxes are frequently used to draw user's attention to information that needs their immediate focus, such as warning, error, or confirmation messages.

Creating Alerts

Bootstrap 5.3 offers a total 8 different types of alerts which have been listed below:

Example

To create an alert we simply use **.alert** class followed by one of the contextual classes such as **.alert-success**, **.alert-info**, **.alert-warning**, **.alert-danger**, **.alert-primary**, **.alert-secondary**, **.alert-light** or **.alert-dark**:

• What is a bootstrap card and how would you create one?

A Bootstrap card is a bordered container. Cards can be used to show a set of content with various styling options.

The following table summarizes the classes of Bootstrap 4 that we have used in this tutorial.

Class	Usage
The .card class	This class is used to create a card.
The .card-header class	This class is used to add a Bootstrap header to the card.
The .card-body class	This class is used to add a body to the card.
The .card-footer class	This class is used to add a Bootstrap footer to the card.
The .card-title class	This class is used to add a title to the card.
The .card-link class	This class is used to add a link to the card
The .card-subtitle class	This class is used to add a sub-title to the card.

The .card-text class	This class is used to remove the bottom margins for a < p> element if it is the last child element or the only child element inside the card body.
The .card-img class	This class is used to insert an image inside the card.
The .card-img-top class	This class is used to insert the card image at the top inside the card.
The .card-img-bottom class	This class is used to insert the card image at the bottom inside the card.
The .card-img-overlay class	This class is used to convert an image into a card background and overlay the card text.
The .card-group class	This class is used to create cards that have equal heights and widths.
The .card-deck class	This class is also used to create cards that have equal heights and widths, but cards are not attached to each other.
The .card-columns class	This class is used to add masonry-like columns to the cards.
The .stretched-link class	This class is used to make the whole card act as a link.
The .bg-primary class	This class is used to add a blue color to the background of the card.
The .bg-secondary class	This class is used to add a grey color to the background of the card.
The .bg-success class	This class is used to add a green color to the background of the card.
The .bg-danger class	This class is used to add a red color to the background of the card.

The .bg-warning class	This class is used to add an orange color to the background of the card.
The .bg-info class	This class is used to add a light blue color to the background of the card.
The .bg-light class	This class is used to add a light grey color to the background of the card.
The .bg-dark class	This class is used to add a dark grey color to the background of the card.
The .border-primary class	This class is used to add a blue color outline to a card.
The .border-secondary class	This class is used to add a grey color outline to a card.
The .border-success class	This class is used to add a green color outline to a card.
The .border-danger class	This class is used to add a red color outline to a card.
The .border-warning class	This class is used to add an orange color outline to a card.
The .border-info class	This class is used to add a light blue color outline to a card.
The .border-light class	This class is used to add a light grey color outline to a card.
The .border-dark class	This class is used to add a dark grey color outline to a card.