

## MODULE: 6 (Bootstrap Basic & Advance)

### **1.what are the advantages of the bootstrap?**

**ans.** the banefits of using bootstrap

- easy to prevent repetitions among multiple projects.
- responsive design that can be used to adapt screen sizes and choose what shows and what doesn't on any giiven device.
- maintaining consistency among projects when using multiple developer teams.
- quick design of prototypes.
- cross-browser compatibility.

### **2.what is bootstrap container, and how does it works?**

**ans.** - 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.

Containers are used for many purposes such as –

It requires use with the default grid system.

- To establish width for the layout to give web content.
- To provide responsive fixed behavior of any web project.
- To sets the content margin dealing with the responsive behavior of your layout.

### **3.what are the default bootstrap text settings?**

**ans.** bootstrap 4 uses a default font-size of 16px, and its line-height is 1.5. the default font-family is "helvetica neue", helvetica, arial, sans-serif. in addition, all <p> element have margin-top:0 and margin-bottom: 1rem(16px by default).

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:

spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1	spa n 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											

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.

**Tip:** Remember that grid columns should add up to twelve for a row. More than that, columns will stack no matter the viewport.

## Grid Classes

The Bootstrap grid system has four 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)

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

**Tip:** Each class scales up, so if you wish to set the same widths for xs and sm, you only need to specify xs.

## Grid System Rules

Some Bootstrap 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
- Predefined classes like `.row` and `.col-sm-4` are available for quickly making grid layouts
- Columns create gutters (gaps between column content) via padding. That padding is offset in rows for the first and last column via negative margin on `.rows`
- Grid columns are created by specifying the number of 12 available columns you wish to span. For example, three equal columns would use three `.col-sm-4`
- Column widths are in percentage, so they are always fluid and sized relative to their parent element

## Grid Options

The following table summarizes how the Bootstrap grid system works across multiple devices:

<b>Extra small</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
<b>&lt;768px</b>	<b>&gt;=768px</b>	<b>&gt;=992px</b>	<b>&gt;=1200px</b>

<b>Class prefix</b>	<b>.col-xs-</b>	<b>.col-sm-</b>	<b>.col-md-</b>	<b>.col-lg-</b>
<b>Suitable for</b>	Phones	Tablets	Small Laptops	Laptops & Desktops
<b>Grid behaviour</b>	Horizontal all times	Collapsed to start, horizontal above breakpoints	Collapsed to start, horizontal above breakpoints	Collapsed to start, horizontal above breakpoints
<b>Container width</b>	None (auto)	750px	970px	1170px
<b># of columns</b>	12	12	12	12
<b>Column width</b>	Auto	~62px	~81px	~97px
<b>Gutter width</b>	30px (15px on each side of a column)	30px (15px on each side of a column)	30px (15px on each side of a column)	30px (15px on each side of a column)
<b>Nestable</b>	Yes	Yes	Yes	Yes

<b>Offsets</b>	Yes	Yes	Yes	Yes
<b>Column ordering</b>	Yes	Yes	Yes	Yes

## Examples

The next chapters shows examples of grid systems for different devices:

- Stacked-to-horizontal
- Small devices
- Medium devices
- Large devices
- More grid examples

## 4. What is the difference between Bootstrap 4 and Bootstrap5?

Ans.

BASIS OF	BOOTSTRAP 4	BOOTSTRAP 5
<b>Grid System</b>	It has 5 tier (xs, sm, md, lg, xl).	It has 6 tier (xs, sm, md, lg, xl, xxl).
<b>Color</b>	It has limited colors.	Extra colors added with the looks, A card improved color

<b>Jquery</b>	It has jquery and all related plugins.	palette. there are various shades available to choose.
<b>Internet Explorer</b>	Bootstrap 4 supports both IE 10 and 11.	Jquery is removed and switched to vanilla JS with some working plugins Bootstrap 5 doesn't support IE 10 and 11.
<b>Form elements</b>	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.
<b>Utilities API</b>	We cannot modify utilities in bootstrap 4	Bootstrap 5 gave freedom to modify and also create our own utility
<b>Gutter</b>	We use .gutter with fontsize in px	We use .g* with fontsize in rem
<b>Vertical Classes</b>	Columns can be positioned relative Bootstrap 4 doesn't have its own SVG icons, we have to use font-awesome for icons.	Columns cannot be positioned relative Bootstrap 5 have its own SVG icons
<b>Bootstrap Icons</b>	It supports.	It doesn't support jumbotron.
<b>Jumbotron</b>	The card deck is used to create an isset of cards with equal width and height.	Card deck class in removed in bootstrap
<b>Card deck</b>	We have inline-block property and we will get white dropdown as default for dropdown-menu-dark class.	Inline-block property is removed and we will get black dropdown as default for dropdown-menu-dark class.
<b>Navbar</b>		Bootstrap 5 uses Hugo software as it is fast static site generator.
<b>Static Site Generator</b>	Bootstrap 4 uses Jekyll software. this makes easier to implement vertical designs, and the columns and rows can easily be implemented. the classes justify-center-content can directly be used to align according to the requirement.	
<b>flexbox grid</b>		advanced grid system is made available , also columns don't have relative positions.

## 5. What is a Button Group, and what is the class



## for a basic Button Group?

Ans. “Button Groups” in Bootstrap is a class of name “**btn-group**” which is used to create series of buttons in groups (without spaces) vertically or horizontally. This is the basic syntax of the button group class where each button has its own class of “btn”.

## 6. How can you use Bootstrap to make thumbnails?

Ans.

Step 1: Include Bootstrap and jQuery CDN into the <head> tag before all other stylesheets to load our CSS.

Step 2: Add <div> tag in the HTML body with class row. In that <div> create four div sections to create four images.

Step 3: Add “col-sm-6” and “col-md-3” to four div sections which creates webpage responsive.

## 7. In Bootstrap 4, what is flexbox?

Ans. Bootstrap 4 now uses flexbox, instead of floats, to handle the layout. The Flexible Box Layout Module, makes it easier to design flexible responsive layout structure without using float or positioning.

## 8. How can one create an alert in Bootstrap?

Ans.**Alerts:-**

Provide contextual feedback messages for typical user actions with the handful of available and flexible alert messages.

Examples:-

Alerts are available for any length of text, as well as an optional dismiss button. For proper styling, use one of the eight **required** contextual classes (e.g., `.alert-success`). For inline dismissal, use the [alerts jQuery plugin](#).

```
<div class="alert alert-primary" role="alert">
  This is a primary alert—check it out!
</div>
<div class="alert alert-secondary" role="alert">
  This is a secondary alert—check it out!
</div>
<div class="alert alert-success" role="alert">
  This is a success alert—check it out!
</div>
<div class="alert alert-danger" role="alert">
  This is a danger alert—check it out!
</div>
<div class="alert alert-warning" role="alert">
  This is a warning alert—check it out!
</div>
```

## 9. What is a bootstrap card and how would you create one?

Ans. A **card** is a flexible and extensible content container. It includes options for headers and footers, a wide variety of content, contextual background colors, and powerful display options. If you're familiar with Bootstrap 3, cards replace our old panels, wells, and thumbnails. Similar functionality to those components is available as modifier classes for cards.

### Example

Cards are built with as little markup and styles as possible, but still manage to

deliver a ton of control and customization. Built with flexbox, they offer easy alignment and mix well with other Bootstrap components. They have no margin by default, so use spacing utilities as needed.

Below is an example of a basic card with mixed content and a fixed width. Cards have no fixed width to start, so they'll naturally fill the full width of its parent element. This is easily customized with our various sizing options.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/css/bootstrap.min.css" rel="stylesheet"
8     integrity="sha384-Zenh87qX5JnK2Jl0vwa8Ck2rdkQ2Bzep5IDxbcnCeu0XjzrPF/et3URy9Bv1WTRI" crossorigin="anonymous">
9   <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.6/dist/umd/popper.min.js" integrity="sha384-oBqDVmMz9ATKxIep9tiCxS/
10     Z9fnfEXiDAYtUjMAeBAsjFuCZSmKbSSUnQlmlh/jp3" crossorigin="anonymous"></script>
11   <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.2/dist/js/bootstrap.min.js" integrity="sha384-IDwe1+LCz02ROU9k972gdyv1+AESN10
12     +x7tBKgc9ISHftuNz0wWnPclzo6p9vxnk" crossorigin="anonymous"></script>
13   <title>Document</title>
14 </head>
15 <body>
16   <div class="card" style="width: 18rem;">
17     
19     <div class="card-body">
20       <h5 class="card-title">Card title</h5>
21       <p class="card-text">Some quick example text to build on the card title and make up the bulk of the card's content.</p>
22       <a href="#" class="btn btn-primary">click</a>
23     </div>
24   </div>
25 </body>
26 </html>
```