

Assignment(Bootstrap)

Q-1 : What are the advantages of Bootstrap?

Advantages of Bootstrap :

- Fewer cross-browser bugs
- A consistent framework that supports major of all browsers and CSS compatibility fixes
- Lightweight and customizable
- Responsive structures and styles
- Several JavaScript plugins using the jQuery
- Good documentation and community support
- Loads of free and professional templates, WordPress themes and plugins
- Great grid system

Q-2 : What is a Bootstrap Container, and how does it work?

- Bootstrap Containers are the most basic layout element in Bootstrap.
- Bootstrap Containers are very essential and basic building blocks of bootstrap that wrap a page's content.
- It's responsible for setting and aligning content within it according to viewport or given device.
- Containers are defined within the container class (.container).
- In other words, we can say that containers are established the width for the layout to give the content.
- Elements and content are added within the 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.
- Bootstrap has the default class or predefined class is “.container” & “.container-fluid” class for layout.
- 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.

Q-3 : What are the default Bootstrap text settings?

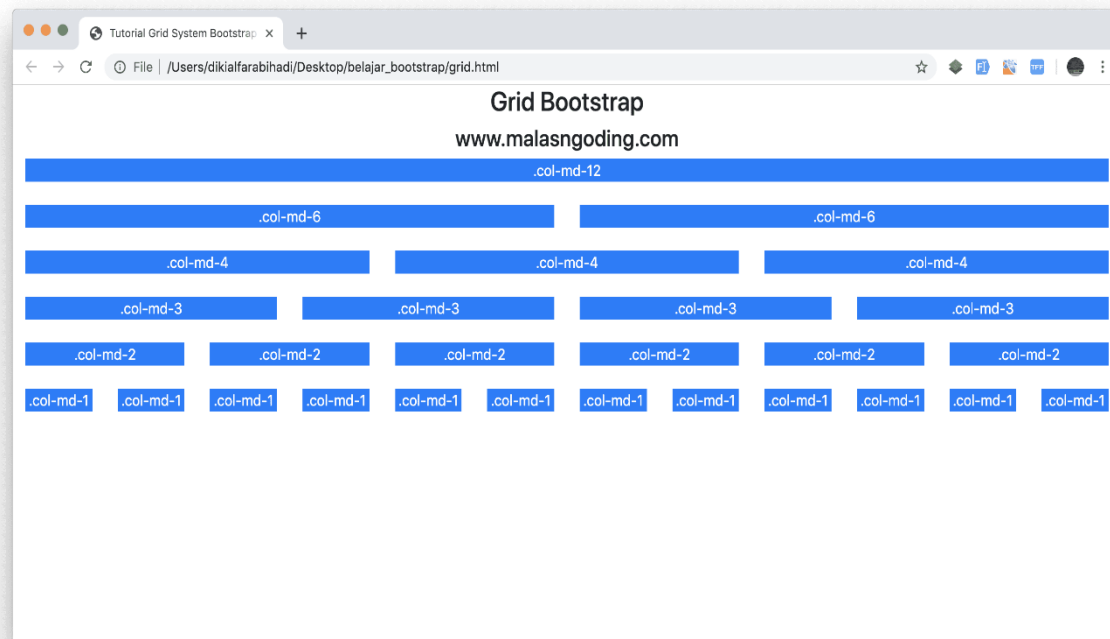
- Bootstrap is a popular front-end framework that provides a set of CSS and JavaScript components for building responsive web applications.

The default text settings in Bootstrap are as follows:

- Font family: The default font family in Bootstrap is “Helvetica Neue”, Helvetica, Arial, sans-serif.

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- Font size: The default font size for the body element in Bootstrap is 16px.
- Font weight: The default font weight for headings in Bootstrap is bold.
- Line height: The default line height for text in Bootstrap is 1.5.
- Text color: The default text color in Bootstrap is black (#000).
- Text alignment: The default text alignment in Bootstrap is left-aligned.
- Text decoration: The default text decoration in Bootstrap is none.
- Text transform: The default text transform in Bootstrap is none.



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)

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

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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

Q-5 : 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
Navbar	We have inline-block property and we will get white dropdown as default	Inline-block property is removed and we will get black dropdown as default

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	for dropdown-menu-dark class.	for dropdown-menu-dark class.
Static Site Generator	Bootstrap 4 uses Jekyll software.	Bootstrap 5 uses Hugo software as it is fast static site generator.
flexbox grid	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.	advanced grid system is made available , also columns don't have relative positions.
RTL Support	It does not enable RTL(Right to Left) switching.	It enables RTL(Right to Left) switching.
Offcanvas Component	It does not support Offcanvas Component.	It supports Offcanvas Component(that is it is available now).

Q-6 : What is a Button Group, and what is the class for a basic Button Group?

- "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.

Syntax :

- This is the basic syntax of the button group class where each button has its own class of "btn".

```
<div class="btn-group">  
  <button type="button" class="btn">Click</button>  
</div>
```

- Buttons have a default border-radius on the first and last buttons of the group.

Adding Styles on Buttons:

- .btn-default
- .btn-primary
- .btn-success
- .btn-info
- .btn-warning
- .btn-danger
- .btn-link

Q-7 : How can you use Bootstrap to make thumbnails?

- Bootstrap provides an easy way to create thumbnails using the .thumbnail class.
- You can use this class to show linked images in grids.
- Here is an example of how to create a thumbnail using the .thumbnail class within the < a > element:

```
<a href="#">
```

```

```

```
</a>
```

- You can also use the .img-thumbnail class to give an image a rounded 1px border appearance.
- Here is an example of how to create an image thumbnail using the .img-thumbnail class:

```

```

Q-8 : In Bootstrap 4, what is flexbox?

- Flexbox is a layout module that makes it easier to design flexible responsive layout structure without using float or positioning.
- Bootstrap 4 uses flexbox to handle the layout of its components and grid system.
- Flexbox helps to create space between containers and elements as per device screen size and user's requirement.
- Flexbox also controls the height, width, and size of the elements.

Syntax :

- <div class = "d-flex"> Bootstrap flexbox items <div>

The bootstrap inline flexbox syntax is below.

- The d-inline-flex class is useful for equal space between elements and containers.
- It works as a responsive and stable layout for the web application.

```
<div class = "d-inline-flex"> Bootstrap flexbox items <div>
```

The bootstrap horizontal flexbox syntax is below.

- The flexbox items place in one row using a flex row class.

```
<div class = "d-flex flex-row"> Bootstrap flexbox items <div>
```

The reverse horizontal flexbox items display the right side of the component.

```
<div class = "d-flex flex-row-reverse"> Bootstrap flexbox items <div>
```

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The basic vertical flexbox syntax is below.

- The flexbox items display vertically using the flex column class in the bootstrap4.
- The default and reverse vertical flexbox class used as per the user's requirement.

<div class = "d-flex flex-column"> Bootstrap flexbox items </div>

<div class = "d-flex flex-column-reverse"> Bootstrap flexbox items </div>

The basic bootstrap flexbox alignment syntax is below.

- The flexbox is useful to justify-content class for display the flexbox item position as per requirement.

- The start, end, between, around, and center alignments are used with flex class.

<div class = "d-flex justify-content-start"> Bootstrap flexbox items </div>

<div class = "d-flex justify-content-end"> Bootstrap flexbox items </div>

The basic flexbox wrap syntax is below.

- The flexbox used to wrap, reverse wrap, and no wrap with respective flexbox classes.

<div class = "d-flex flex-wrap"> Bootstrap flexbox items </div>

<div class = "d-flex flex-wrap-reverse"> Bootstrap flexbox items </div>

The flex-nowrap is the default flexbox. The users need to use it for design and responsive purposes.

<div class = "d-flex flex-nowrap"> Bootstrap flexbox items </div>

Q-9 : How can you create an alert in Bootstrap?

- Alerts are created with the .alert class, followed by one of the four contextual classes .alert-success, .alert-info, .alert-warning or .alert-danger

Syntax :

<div class="alert alert-success">

<h1>Success!</h1> Indicates a successful or positive action.

</div>

<div class="alert alert-info">

<h1>Info!</h1> Indicates a neutral informative change or action.

</div>

<div class="alert alert-warning">

<h1>Warning!</h1> Indicates a warning that might need attention.

</div>

<div class="alert alert-danger">

<h1>Danger!</h1> Indicates a dangerous or potentially negative action.

</div>

Q-10 : What is a bootstrap card and how would you create one?

To create a basic Bootstrap card, you need to:

- Add the .card class to a element.
- Inside the element, add another element with the .card-body class.
- Add text inside the inner element.
- To create a more complex card, you can use the following classes:
- .card-title: to add a heading element to the card.
- .card-text: to add text elements to the card.
- .card-header: to create a header inside the card.
- .card-footer: to create a footer inside the card.
- .card-img-top or .card-img-down: to align an image within the card.

Example :

```
<div class="card" style="width: 18rem;">

<div class="card-body">
  <h5 class="card-title">Card title</h5>
  <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>
  <a href="#" class="btn btn-danger">Click Me</a>
</div>
</div>
```