

## 1. What are the advantages of Bootstrap?

### Answer:

The bootstrap is an Open Source Front-End framework, used for Web Application development, made up of HTML, CSS and JavaScript, which twitter has developed. This is a free program that anyone can download and use. And you can run it on any platform (Windows, Linux, Mac). Bootstrap gives you the option of using the Grid System which is known as one of the fastest and simplest ways to create a layout that saves you time.

Bootstrap is used to make the website responsive, Responsive means that if you open a website in PC, open it in laptop or open in tablet or open in any small mobile, the screen size of bootstrap website will automatically adjust, and the website content shows well.

1. **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.
2. **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.
3. **Reinforcement of Grids:** One more recommendable feature is that bootstrap holds 12 column grid styles and supports responsiveness, counterbalance, and embedded elements.
4. **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.

## 2. What is a Bootstrap Container, and how does it work?

### Answer:

Bootstrap, container is used to set the content's margins dealing with the responsive behaviors of your layout. It contains the row elements and the row elements are the container of columns (known as grid system).

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

**Bootstrap comes with three different containers:**

1.

.container, which sets a max-width at each responsive breakpoint

2.

3.

.container-fluid, which is width: 100% at all breakpoints

4.

5.

.container-{breakpoint}, which is width: 100% until the specified breakpoint

6.

- » 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?

#### Answer:

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 elements have margin-top: 0 and margin-bottom: 1rem (16px by default).

1. Bootstrap 4 styles HTML headings (<h1> to <h6>) with a bolder font-weight and an increased font-size:
2. **Display Headings:** Display headings are used to stand out more than normal headings (larger font-size and lighter font-weight), and there are four classes to choose from: .display-1, .display-2, .display-3, .display-4
3. **<small>** In Bootstrap 4 the HTML <small> element is used to create a lighter, secondary text in any heading:
4. **<mark>** Bootstrap 4 will style the HTML <small> element with a yellow background color and some padding:
5. **<abbr>** Bootstrap 4 will style the HTML <abbr> element with a dotted border bottom:
6. **<blockquote>** Add the .blockquote class to a <blockquote> when quoting blocks of content from another source:
7. **<dl>** Bootstrap 4 will style the HTML <dl> element in the following way:
8. **<code>** Bootstrap 4 will style the HTML <code> element in the following way:
9. **<kbd>** Bootstrap 4 will style the HTML <kbd> element in the following way:
10. **<pre>** Bootstrap 4 will style the HTML <pre> element in the following way:

#### 4. What do you know about the Bootstrap Grid System?

Answer:

##### Grid system

Bootstrap grid is a powerful system for building mobile-first layouts. It's very extensive tool with a great number of options.

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

1. **Container** Bootstrap requires a containing element to wrap site contents and house our grid system. Without a container, the grid won't work properly.
2. **Row** Rows create horizontal groups of columns. Therefore, if you want to split your layout horizontally, use `.row`.
3. **Columns** Bootstrap's grid system allows up to 12 columns across the page.

#### 5. What is the difference between Bootstrap 4 and Bootstrap 5 ?

Answer:

It is an open-source framework from late 2011 that is used for designing responsive websites with a mobile-first approach faster and easier. Bootstrap is available for HTML, CSS, and JS. According to server-side languages like PHP, Node, etc. bootstrap helps to design the frontend. Bootstrap has made the work for developers easier by making the templates ready which are basic part of every website. Thus people tend to develop further and don't waste time on basic templates with beautiful designs along with responsiveness available.

Bootstrap 5 alpha launched in mid-June of 2020. As it is in the alpha-1 version, in the future some more features can be added to 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	Jquery is removed and

BASIS OF	BOOTSTRAP 4	BOOTSTRAP 5
	related plugins.	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 an isset 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 for dropdown-menu-dark class.	Inline-block property is removed and we will get black dropdown as default 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	advanced grid system is made available , also columns don't have relative positions.

BASIS OF	BOOTSTRAP 4	BOOTSTRAP 5
	directly be used to align according to the requirement.	
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).

## 6. What is a Button Group, and what is the class for a basic Button Group?

### Answer:

“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”

```
<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:** Bootstrap allows you to add styles to your buttons using the following classes:

1. .btn-default
2. .btn-primary
3. .btn-success
4. .btn-info
5. .btn-warn
6. .btn-dang
7. .btn-link

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

### Answer:

**Bootstrap:** helps web developers to create thumbnails that are used to show linked images in grids with the pre-defined classes which help to reduce codes length. Thumbnails are created to provide a quick preview of images with small images.

**Thumbnail Image:** A thumbnail is a small image that represents a larger image. Bootstrap has an easy way to do this with thumbnails. Bootstrap’s .thumbnail class is used to show linked images in grids (grid system), a thumbnail is created using class .thumbnail within the element <a>. The class .col-sm-\* and .col-md-\* (where \* represent number ), it is used to create grids of the images.

## Step by step guide for the implementation:

1. **Step 1:** Include Bootstrap and jQuery CDN into the tag before all other stylesheets to load our CSS.
2. **Step 2:** Add <div> tag in the HTML body with class row. In that <div> create four div sections to create four images.
3. **Step 3:** Add “col-sm-6” and “col-md-3” to four div sections which creates webpage responsive.
4. **Step 4:** Add <a> tag with class value thumbnail to define the link of the image in the next line.

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

**Answer:**

**Bootstrap 4 Flex** The biggest difference between Bootstrap 3 and Bootstrap 4 is that 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. It's important to understand that Bootstrap 4's grid system is built with Flexbox. What sets Bootstrap apart from using Flexbox alone is the process of writing code. With Bootstrap, you can create a grid using only HTML. With Flexbox, you must use HTML and CSS. Let's take a closer look at each process below.

Bootstrap has a twelve-column system, which means there can be up to twelve grid columns on a single horizontal block. You can have more than twelve, they'll just start to wrap rather than show up on a single axis, regardless of the viewport.

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

**Answer:**

1. **Step 1:** Include Bootstrap and jQuery CDN into the <head> tag before all other stylesheets to load our CSS.
2. **Step 2:** Add the .alert and the warning alert contextual classes (e.g., .alert-warning).
3. **Sample Code:**

```
<div class="alert alert-warning" role="alert"> A simple warning alert—  
check it out! </div>
```

Bootstrap provides an easy way to create predefined alert messages:

4.

5.

**Success!** Indicates a successful or positive action.

**Info!** Indicates a neutral informative change or action.

**Warning!** Indicates a warning that might need attention.

**Danger!** Indicates a dangerous or potentially negative action.

**✖Danger!** This alert box could indicate a dangerous or potentially negative action.

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

**Answer:**

*Card:*

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.

Bootstrap's cards provide a flexible and extensible content container with multiple variants and options.

*About*

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.

**Contents:**

### 1. Sample code:

```
<div class="card">  <div class="card-block"> <h4 class="card-title">Card title <p class="card-text">Some quick example text to build on the card title and make up the bulk of the card's content. <a href="#" class="btn btn-primary">Go somewhere </div> </div>
```

#### Card



Card title

Some quick example text to build on the card title and make up the bulk of the card's content.

