**BOOTSTRAP**

**What is Bootstrap?**

Bootstrap is a free, open source front-end development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites.

**Why is Bootstrap famous?**

One of the reasons why Bootstrap is so popular among web developers and web designers is that it has a simple file structure. Its files are compiled for easy access, and it only requires basic knowledge of HTML, CSS, and JS to modify them.

**What is the main feature of Bootstrap?**

Bootstrap offers a rich library of pre-designed user interface components, such as navigation bars, buttons, forms, modals, and more.

**What is the main advantage of Bootstrap?**

Bootstrap offers a wide range of pre-built components, such as navigation bars, forms, buttons, and more, saving you time and effort in coding from scratch.

**Why is Bootstrap called framework?**

Bootstrap is framework because its bundle of libraries.

**What are the properties of Bootstrap?**

In Bootstrap, the display property controls the layout behavior of elements. Bootstrap provides utility classes like d-none (hide), d-block (display as block), d-inline (display as inline), etc., for responsive display manipulation. Sets the display property of an element to block, making it a block-level element.

**What are the disadvantages of using Bootstrap?**

However, Bootstrap also has some limitations and challenges. One of them is that it can make your website look too similar to others that use the same framework, unless you customize it extensively. Bootstrap also adds a lot of extra code and files to your website, which can affect its performance and loading speed.

**What is Bootstrap form types?**

Bootstrap provides three types of form layouts:

Vertical form (this is default)

Horizontal form.

Inline form.

* Vertical Form: Stacked form controls, the default layout.
* Horizontal Form: Labels and controls are aligned side-by-side.
* Inline Form: Form controls are displayed in a single line.

**Types of Containers:**

**.container:**

This is a responsive fixed-width container.

**.container-fluid:**

This is a full-width container.

**.container-{breakpoint}** (e.g., .container-sm, .container-md, .container-lg, .container-xl, .container-xxl):

**Breakpoint Values:**

Extra small (xs): <576px (100% width)

Small (sm): ≥576px (540px)

Medium (md): ≥768px (720px)

Large (lg): ≥992px (960px)

Extra large (xl): ≥1200px (1140px)

Extra extra large (xxl): ≥1400px (1320px)

≥576px (540px): This indicates that the breakpoint applies to viewports with a width of 576 pixels or larger. However, there's a caveat that the actual content width inside the container might be 540 pixels due to padding or other factors specific to Bootstrap's grid system.

**Margin Classes:**

m - for classes that set margin on all sides of the element.

mt - for classes that set margin-top.

mb - for classes that set margin-bottom.

ml - for classes that set margin-left.

mr - for classes that set margin-right.

mx - for classes that set both margin-left and margin-right.

my - for classes that set both margin-top and margin-bottom.

**Spacing Scale:**

0 - sets the margin to 0.

1 - sets the margin to 0.25rem.

2 - sets the margin to 0.5rem.

3 - sets the margin to 1rem.

4 - sets the margin to 1.5rem.

5 - sets the margin to 3rem.

auto - sets the margin to auto.

**Examples:**

<div class="m-3 mb-5">HELLO</div>

<div class="mt-2">HELLO</div>

<div class="ml-4">HELLO</div>

<div class="mx-3">HELLO</div>

<div class="my-5">HELLO</div>

<div class="m-0">HELLO</div>

<div class="mt-sm-3 mt-lg-5 mb-4 ml-1 mr-2">HELLO</div>

Breakpoints include **sm**, **md**, **lg**, **xl**, and **xxl**.

1rem

<div class="m-sm-3">HELLO</div>

1rem

<div class="mt-md-4">HELLO</div>

**Padding:**

p - for classes that set padding on all sides of the element.

pt - for classes that set padding-top.

pb - for classes that set padding-bottom.

pl - for classes that set padding-left.

pr - for classes that set padding-right.

px - for classes that set both padding-left and padding-right.

py - for classes that set both padding-top and padding-bottom.

**Spacing Scale:**

0 - sets the padding to 0.

1 - sets the padding to 0.25rem.

2 - sets the padding to 0.5rem.

3 - sets the padding to 1rem.

4 - sets the padding to 1.5rem.

5 - sets the padding to 3rem.

0.5rem

<div class="pt-2">...</div>

1rem

<div class="p-3">...</div>

1.5rem

<div class="pl-4">...</div>

horizontal padding of 1rem

<div class="px-3">...</div>

vertical padding of 3rem

<div class="py-5">...</div>

To remove the padding from all sides.

<div class="p-0">...</div>

To remove the top padding.

<div class="pt-0">...</div>

<div class="pt-3 pb-4 pl-1 pr-2">...</div>

Breakpoints include sm, md, lg, xl, and xxl.

**Example:**

To add a padding of 1rem on all sides for small.

<div class="p-sm-3">...</div>

To add a top padding of 2rem on medium.

<div class="pt-md-4">...</div>

**Position:**

<div class="position-relative">

<div class="position-absolute top-0 start-0">

<div class="position-fixed top-0 end-0">

<div class="position-sticky top-0">

**Display Properties:**

Block Display (d-block):

<div class="d-block">

Inline Display (d-inline):

<span class="d-inline">

Inline Block Display (d-inline-block):

<div class="d-inline-block">

Flex Display (d-flex):

<div class="d-flex">

Inline Flex Display (d-inline-flex):

<div class="d-inline-flex">

None Display (d-none):

<div class="d-none">

**Responsive Block Display:**

d-sm-block

d-md-block

d-lg-block

d-xl-block

<div class="d-sm-block d-md-none">

**Responsive Inline Display:**

d-sm-inline

d-md-inline

d-lg-inline

d-xl-inline

<span class="d-lg-inline d-xl-none">

**Responsive Inline Block Display:**

d-sm-inline-block

d-md-inline-block

d-lg-inline-block

d-xl-inline-block

<div class="d-md-inline-block d-lg-none">

**Responsive Flex Display:**

d-sm-flex

d-md-flex

d-lg-flex

d-xl-flex

<div class="d-sm-flex d-md-none">

**Responsive None Display:**

d-sm-none

d-md-none

d-lg-none

d-xl-none

<div class="d-md-none d-lg-block">

**Borders:**

.border: Adds a border on all sides of the element.

.border-top: Adds a border on the top side.

.border-right: Adds a border on the right side.

.border-bottom: Adds a border on the bottom side.

.border-left: Adds a border on the left side.

**Border Color:**

.border-primary: Adds a border with the primary color.

.border-secondary: Adds a border with the secondary color.

.border-success: Adds a border with the success color.

.border-danger: Adds a border with the danger color.

.border-warning: Adds a border with the warning color.

.border-info: Adds a border with the info color.

.border-light: Adds a border with the light color.

.border-dark: Adds a border with the dark color.

**Border Width:**

.border-0: Removes all borders.

.border-1: Adds a border with a width of 1px.

.border-2: Adds a border with a width of 2px.

.border-3: Adds a border with a width of 3px.

.border-4: Adds a border with a width of 4px.

.border-5: Adds a border with a width of 5px.

**Border Radius:**

.rounded: Adds a border radius of 0.25rem to all sides.

.rounded-top: Adds a border radius to the top corners.

.rounded-right: Adds a border radius to the right corners.

.rounded-bottom: Adds a border radius to the bottom corners.

.rounded-left: Adds a border radius to the left corners.

.rounded-circle: Makes the element circular.

.rounded-pill: Adds a larger border radius, making the element pill-shaped.

.rounded-0: Removes border radius.

.rounded-1: Adds a small border radius.

.rounded-2: Adds a slightly larger border radius.

.rounded-3: Adds an even larger border radius.

**Text Alignment:**

.text-start: Aligns text to the left.

.text-center: Centers the text.

.text-end: Aligns text to the right.

**Widths:**

.w-25: Sets the width to 25%.

.w-50: Sets the width to 50%.

.w-75: Sets the width to 75%.

.w-100: Sets the width to 100%.

.w-auto: Sets the width to auto.

**Max Width:**

.mw-100: Sets the max-width to 100%.

**Heights:**

.h-25: Sets the height to 25%.

.h-50: Sets the height to 50%.

.h-75: Sets the height to 75%.

.h-100: Sets the height to 100%.

.h-auto: Sets the height to auto.

**Max Height:**

.mh-100: Sets the max-height to 100%.