Chapter 6

Links and scripts for bootstrap
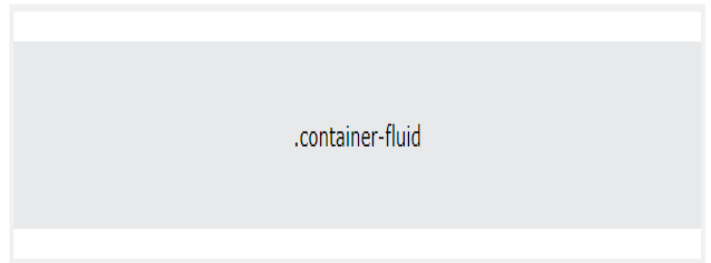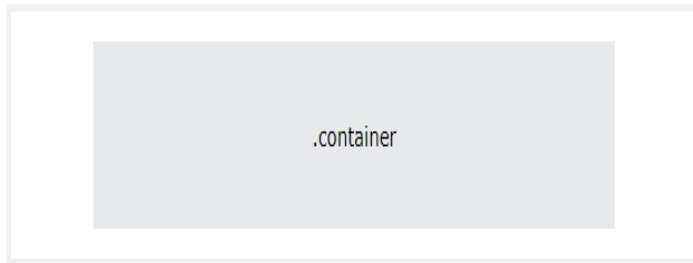
Type	Code (write these highlighted link and script in exam)	Description	When to Use
CSS (Required)	`<link rel="stylesheet" href="bootstrap.min.css">`	Loads Bootstrap's styles (layout, components, utilities). Must be included in every Bootstrap project.	Always use. Needed for all Bootstrap designs and components.
Bundle JS (Recommended)	`<script src="bootstrap.bundle.min.js"></script>`	Includes Bootstrap JS + Popper in one file. Simple and efficient.	Use this most of the time. Best for beginners and general projects.
Separate JS	`<script src="popper.min.js"></script>` `<script src="bootstrap.min.js"></script>`	Popper and Bootstrap JS are loaded separately. Allows manual control of dependencies.	Use only when you already include Popper separately or need advanced customization.

Below code must be written in exam…

```
<html>
<head>
<link rel="stylesheet" href="bootstrap.min.css">
<script src="bootstrap.bundle.min.js"></script>
</head>
<body>bootstrap code</body>
</html>
```

Bootstrap 5 Breakpoints & Container Max-Width

Class	Width
.container	Has a **fixed width** and stays **centered** on the page.
.container-fluid	Always **100% full width**, stretching across the entire screen.

Screen Size	Abbrev.	Breakpoint (viewport width)	.container Max-Width	.container-{breakpoint} Behavior
Extra small	xs	< 576px	**100% (fluid)**	.container. 100% width <576px
Small	sm	≥ 576px	**540px**	**.container-sm** becomes fixed-width at sm and larger; fluid below sm.
Medium	md	≥ 768px	**720px**	**.container-md** is fixed-width at md and larger; fluid below md.
Large	lg	≥ 992px	**960px**	**.container-lg** is fixed-width at lg and larger; fluid below lg.
Extra large	xl	≥ 1200px	**1140px**	**.container-xl** is fixed-width at xl and larger; fluid below xl.
Extra extra large	xxl	≥ 1400px	**1320px**	**.container-xxl** is fixed-width at xxl and larger; fluid below xxl.

Bootstrap Utility Classes

1. Property (what you are setting)

Token	Meaning
m	margin
p	padding

2. Side (where it applies)

Token	Applies To
(blank)	all sides
t	top
b	bottom
s	start (left in LTR, right in RTL)
e	end (right in LTR, left in RTL)
x	left + right
y	top + bottom

3. Size (how much spacing)

Token	Value (default)
0	0
1	0.25rem
2	0.5rem
3	1rem
4	1.5rem
5	3rem
auto	auto (margin only)

Sizing

Width Classes (w-*)

Class	What It Means	Description
w-25	width: 25%	Element takes 25% of its parent's width.
w-50	width: 50%	Element takes half of the parent's width.
w-75	width: 75%	Element takes 75% of the parent's width.
w-100	width: 100%	Element stretches to the full width of its parent.
w-auto	width: auto	Width adjusts to the content's natural size.

Height Classes (h-*)

Class	What It Means	Description
h-25	height: 25%	Element's height becomes 25% of its parent container.
h-50	height: 50%	Half the height of the parent.
h-75	height: 75%	75% of the parent's height.
h-100	height: 100%	Fills the entire height of the parent.
h-auto	height: auto	Height adapts based on content.

Text Colors

Class	Description (Expanded Meaning)
text-primary	Applies the theme's main "primary" color (usually blue).
text-secondary	Applies a secondary accent color (usually gray).
text-success	Applies the success color (green), often used for positive messages.
text-danger	Applies the danger color (red), used for errors or warnings.
text-warning	Applies the warning color (yellow/orange), used for caution messages.
text-info	Applies the info color (teal/light blue), used for informational notes.
text-dark	Applies a dark gray/black text color.
text-light	Applies a very light/white-ish text color.
text-muted	Applies a soft, faded gray color used for less important text.
text-white	Applies **pure white text color** (#fff) to the element. Useful for dark backgrounds, headers, footers, banners, buttons, and overlays.

Background Colors

Class	Text Color Used	Description
bg-primary	text-white	Applies the primary theme background color (usually blue).
bg-secondary	text-white	Applies the secondary gray background color.
bg-success	text-white	Applies the success (green) background color.
bg-danger	text-white	Applies the danger (red) background color.
bg-warning	text-dark	Applies the warning (yellow/orange) background color.
bg-info	text-dark	Applies the info (teal/light-blue) background color.
bg-light	text-dark	Applies a very light gray/white background.
bg-dark	text-white	Applies a dark gray/black background.
bg-white	text-dark	Sets the background to pure white (#fff).
bg-transparent	text-dark	Makes the background fully transparent (no color).

Typography and text utilities

Class	Category	Description
text-lowercase	Text Transform	Converts all letters in the text to lowercase.
text-uppercase	Text Transform	Converts all letters in the text to uppercase.
text-capitalize	Text Transform	Capitalizes the **first letter of each word**, leaving other letters unchanged.
text-decoration-none	Text Decoration	Removes underline and other text decoration (useful for links).
text-decoration-underline	Text Decoration	Adds an underline under the text.
text-decoration-line-through	Text Decoration	Adds a line through the text (strikethrough).
text-start	Alignment	Aligns text to the left (start). RTL-aware.
text-center	Alignment	Centers the text horizontally.
text-end	Alignment	Aligns text to the right (end). RTL-aware.
fs-1 to fs-6	Font Size	Sets the font size. fs-1 is largest, fs-6 is smallest. Matches HTML heading scale.
fw-bold	Font Weight	Makes the text bold.
fw-bolder	Font Weight	Makes the text bolder than the parent element.
fw-light	Font Weight	Applies a light font weight.
fw-lighter	Font Weight	Makes the text lighter than the parent element.
fst-italic	Font Style	Applies italic styling.
fst-normal	Font Style	Removes italic styling; returns to normal.

Shadows

Class	Detailed Description
shadow-sm	Adds a **small, subtle shadow**, giving a light lifted look without strong depth.
shadow	Applies a **standard (medium) shadow**, commonly used for cards and floating elements.
shadow-lg	Adds a **large, deeper shadow** to create strong elevation and highlight prominence.

Borders

Class	Detailed Description
border	Adds a **1px solid border** to all four sides of the element using the default border color.
border-0	Removes **all borders**, overriding any border styles the element may have.
border-top	Adds a **border only to the top** edge of the element.
border-bottom	Adds a **border only to the bottom** edge of the element.
border-start	Adds a **border to the start side** (left in LTR, right in RTL).
border-end	Adds a **border to the end side** (right in LTR, left in RTL).
border-primary	Applies the **primary theme color** to the border.
border-secondary	Applies the secondary theme color to the border.
border-success	Applies the success (green) color to the border.
border-danger	Applies the danger (red) color to the border.
border-warning	Applies the warning (yellow/orange) color to the border.
border-info	Applies the info (teal/light-blue) color to the border.
border-dark	Applies a dark-colored border.
border-light	Applies a very light-colored border.
border-white	Applies a **white border** (useful on dark backgrounds).
border-1	Sets border thickness to **thin (1px)**.
border-2	Sets border thickness to **medium-thin**.
border-3	Medium thickness, more visible border.
border-4	Thick border for emphasis.
border-5	Very thick, bold border (strong visual emphasis).
rounded	Adds standard **rounded corners** (0.25rem).
rounded-circle	Makes the element **fully circular** using border-radius: 50% (works best when width = height).

Display

Class	Description (Expanded & Easy Explanation)
d-none	Completely hides the element. It does not take up any space on the page.
d-block	Makes the element a **block-level element**. It starts on a new line and takes the full width available.
d-inline	Makes the element an **inline element**. It does **not** start on a new line and only takes the width of its content.
d-inline-block	Acts like inline (no line break) but **allows setting width and height** like a block element.
d-flex	Turns the element into a **flex container**, enabling Flexbox layout for arranging child elements.
d-inline-flex	Same as d-flex, but the element behaves **inline** (no line break before/after).
d-grid	Turns the element into a **CSS Grid container**, enabling grid layout for its children.

Flex

Class	Description
d-flex	Makes the element a flex container (display: flex).
d-inline-flex	Makes the element an inline flex container (display: inline-flex).
flex-row	Flex items are laid out in a row (horizontal).
flex-row-reverse	Flex items laid out in a row but in reverse order.
flex-column	Flex items laid out in a column (vertical).
flex-column-reverse	Flex items laid out in a column in reverse order.
justify-content-start justify-content-end justify-content-center justify-content-between justify-content-around justify-content-evenly	Controls alignment of flex items along main axis (horizontal for row, vertical for column).
align-items-start align-items-end align-items-center	Controls alignment of flex items along the cross axis.
flex-wrap	Allows flex items to wrap onto multiple lines when needed.

Class	Description
flex-nowrap	Prevents wrapping; all flex items stay on a single line.
flex-wrap-reverse	Wraps items onto multiple lines, but in reverse order.

Positioning

Class	Detailed Description
position-static	Default position. The element stays in normal document flow and is **not affected** by top/start/end/bottom offsets.
position-relative	The element stays in the normal flow **but can be shifted** using top/start/end/bottom without affecting other elements' layout. Often used as a containing parent for absolutely positioned children.
position-absolute	The element is **removed from normal flow** and positioned relative to its nearest positioned ancestor (not static). Uses offsets to place itself precisely.
position-fixed	Stays **fixed relative to the viewport**. Does not move even when the page scrolls. Common for sticky headers, floating buttons, and alerts.
position-sticky	Acts like relative until a scroll threshold is reached, then becomes **fixed** at the top (or side) based on offsets. Useful for sticky headers or sidebars.
top-0 / top-50 / top-100	Moves the element **down** from the top edge of its positioned container by 0%, 50%, or 100%.
bottom-0 / bottom-50 / bottom-100	Moves the element **upward** from the bottom by the given percentage.
start-0 / start-50 / start-100	Offsets from the **start side** (left in LTR, right in RTL).
end-0 / end-50 / end-100	Offsets from the **end side** (right in LTR, left in RTL).

Images

Class	Description	What It Looks Like
img-fluid	Makes image responsive.	Image adjusts size automatically

Class	Description	What It Looks Like
rounded	Gives the image small rounded corners.	Slightly curved edges
rounded-circle	Makes the image a perfect circle	Circular profile photo
img-thumbnail	Adds a border + padding to look like a photo frame.	Thumbnail-style border

Table classes

Class	Description
table	Adds basic Bootstrap table styling.
table-striped	Adds zebra-striped rows (alternating light/dark rows).
table-bordered	Adds borders to all table cells.
table-borderless	Removes all borders.
table-hover	Adds a highlight effect when hovering over rows.
table-sm	Makes table more compact with reduced padding.
table-dark	Applies a dark theme to the entire table.
table-light	Applies a light theme (usually default).
table-primary / secondary / success / danger / warning / info / dark / light	Applies contextual color to the **entire row or cell**.
table-responsive	Makes table horizontally scrollable on small screens.

```html
<div class="table-responsive">  <!-- Makes table scrollable on small screens -->
    <table class="table
            table-striped
            table-bordered
            table-borderless
            table-hover
            table-dark
            table-sm">


    <thead class="table-primary">
        <!-- table header structure -->
    </thead>


    <tbody>
        <!-- table rows structure -->
    </tbody>


    </table>
</div>
```
Just a structure of table and where to add the different classes. Add classes as per your requirements.

Grid options

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1

span 4	span 4	span 4

span 4	span 8

span 6	span 6

span 12

Breakpoint	Class Prefix	Width
Extra small	.col-	<576px
Small	.col-sm-	≥576px
Medium	.col-md-	≥768px
Large	.col-lg-	≥992px
Extra large	.col-xl-	≥1200px
Extra extra large	.col-xxl-	≥1400px

Class Pattern	Meaning	Behavior
col	Auto column	All .col in a row share equal width on all screens.
col-*	Fixed width	* = number (1-12); width stays same on all screens.
col-sm-*	Small screens up	Applies width at ≥576px; below this size it stacks. * = number (1-12);
col-md-*	Medium screens up	Applies width at ≥768px; below this it stacks. * = number (1-12);
col-lg- *	Large screens up	Applies width at ≥992px; below this it stacks. * = number (1-12);

Class Pattern	Meaning	Behavior
col-xl-	Extra-large screens up	Applies width at ≥1200px. * = number (1-12);
col-xxl-	Extra-extra-large screens up	Applies width at ≥1400px. * = number (1-12);

1) .col **(auto equal columns)**

```
<div class="row">
 <div class="col">A</div>
 <div class="col">B</div>
 <div class="col">C</div>
</div>
```

→ 3 equal columns on all devices

2) .col-* (fixed width everywhere)

```
<div class="row">
 <div class="col-3">A</div>
 <div class="col-3">B</div>
 <div class="col-3">C</div>
 <div class="col-3">D</div>
</div>
```

→ Always 4 equal columns on all devices

3) .col-sm-* **(responsive at 576px+)**

```
<div class="row">
 <div class="col-sm-4">A</div>
 <div class="col-sm-8">B</div>
</div>
```

- **<576px → stacked**
- **≥576px → 4 + 8 layout**

Button classes

Category	Class	Description
Base Class	.btn	Required base class for all Bootstrap buttons
Button Styles (Colors)	.btn-primary	Blue primary button
	.btn-secondary	Gray secondary button
	.btn-success	Green success button
	.btn-info	Teal info button
	.btn-warning	Yellow warning button
	.btn-danger	Red danger button
	.btn-dark	Black/dark button
	.btn-light	Light button
	.btn-link	Looks like a hyperlink
Outline Buttons	.btn-outline-primary	Outline version of primary
	.btn-outline-secondary	Outline version of secondary
	.btn-outline-success	Outline version of success
	.btn-outline-info	Outline version of info
	.btn-outline-warning	Outline version of warning
	.btn-outline-danger	Outline version of danger
	.btn-outline-dark	Outline version of dark
	.btn-outline-light	Outline version of light
Sizes	.btn-lg	Large button
	.btn-sm	Small button
Width / Block Level	.w-100	Full-width button
States	.active	Appears pressed
	disabled (attribute)	Makes \<button\> unclickable
	.disabled	Disables \<a\> buttons visually
Where They Can Be Used	\<button\>	Works with all classes
	\<a\>	Needs href="#"
	\<input\>	Works with type="button" or type="submit"

Spinners

Category	Class	Description
Spinner Types	.spinner-border	Circular rotating border spinner
	.spinner-grow	Growing pulse-style spinner
Spinner Sizes	.spinner-border-sm	Small border spinner
	.spinner-grow-sm	Small growing spinner
Spinner Colors *(use text utilities)*	.text-primary	Blue spinner
	.text-secondary	Gray spinner
	.text-success	Green spinner
	.text-info	Teal spinner
	.text-warning	Yellow spinner
	.text-danger	Red spinner
	.text-dark	Black spinner
	.text-light	Light spinner
	.text-muted	Faded spinner
Spinner in Buttons		Adds spinner inside a button
	<button disabled> ... </button>	Loading state buttons

Example

```
<button class="btn btn-primary"></button>

<span class="spinner-border spinner-border-sm"></span>

<button class="btn btn-primary" disabled>
  <span class="spinner-border spinner-border-sm"></span>
  Loading..
</button>
```

Alerts

Part	Meaning	Explanation
alert	Makes the element a Bootstrap alert	Applies alert formatting
.alert-success, .alert-info, .alert-warning, .alert-danger, .alert-primary, .alert-secondary, .alert-light .alert-dark.	Color of an alert	Contextual color
alert-dismissible	Makes the alert closable	Adds padding for the close button
fade	Adds fade animation	Alert fades out smoothly when closed
show	Makes fade animation visible	Shows alert immediately with fade effect
btn-close	Bootstrap close (×) button	Replaces the old close icon
data-bs-dismiss="alert"	Dismisses (closes) the alert	Tells Bootstrap JS to remove the alert when clicked

Example:

```
<div class="alert alert-warning alert-dismissible fade show">
    Important message
    <button type="button" class="btn-close" data-bs-dismiss="alert" ></button>
</div>
```

Dropdowns

Class / Attribute	Type	Meaning / Use
dropdown	Class	Wrapper that activates dropdown component.
btn	Class	Base button styling.
btn-secondary	Class	Button color style (secondary theme).
dropdown-toggle	Class	Adds dropdown arrow and enables toggle styling.
dropdown-menu	Class	The menu container that appears when opened.
dropdown-item	Class	Styles each menu link/item.
data-bs-toggle="dropdown"	Attribute	**Most important attribute.** Tells Bootstrap to open/close the dropdown.

```html
<div class="container m-4">
 <div class="dropdown">
   <button class="btn btn-success
dropdown-toggle" data-bs-
toggle="dropdown">
     Subjects
   </button>
   <div class="dropdown-menu">
    <strong class="dropdown-header">Sem
3</strong>
    <a class="dropdown-item active"
href="#">FSD-1</a>
    <a class="dropdown-item disabled"
href="#">FCSP-1</a>
    <a class="dropdown-item"
href="#">DE</a>
    <a class="dropdown-item"
href="#">PS</a>

    <div class="dropdown-divider"></div>

    <strong class="dropdown-header">Sem
4</strong>
```

```html
    <a class="dropdown-item"
href="#">FSD-2</a>
    <a class="dropdown-item disabled"
href="#">FCSP-2</a>
    <a class="dropdown-item"
href="#">TOC</a>
   </div>
 </div>
</div>
```

Collapse

Item	Type	Meaning / Function
btn	Class	Base Bootstrap button styling.
btn-primary	Class	Blue primary button style.
data-bs-toggle="collapse"	Attribute	Tells Bootstrap JS to toggle a collapse component when clicked.
href="#collapseExample"	Attribute (link version)	The target collapse element ID (for \<a\> tag triggers). Works the same as data-bs-target.
data-bs-target="#collapseExample"	Attribute (button version)	Points to the collapse element by ID (used with \<button\>).
collapse	Class	Makes the div collapsible (hidden by default).
id="collapseExample"	Attribute	Matches the trigger's href or data-bs-target.
card-body	Class	Bootstrap card component wrapper.
card	Class	Proper padding and text formatting inside card.

Example:

```
<div>
<a class="btn btn-primary" data-bs-toggle="collapse" href="#collapseExample" >
   Link with href
</a>
<div class="collapse" id="collapseExample">
 <div class="card card-body">
    Some placeholder content for the collapse component. This panel is hidden by default but
revealed when the user activates the relevant trigger.
 </div>
</div>
</div>

<div>
 <button data-bs-toggle="collapse" data-bs-target="#collapseExample1" class="btn btn-
primary" >
   Button with data-bs-target
 </button>
```

```
<div class="collapse" id="collapseExample1">
  <div class="card card-body">
    Some placeholder content for the collapse component. This panel is hidden by default but
revealed when the user activates the relevant trigger.
  </div>
</div>
</div>
```

The class **show** is used with **.collapse** to make the content **visible by default**.

```
<div class="collapse show" id="collapseExample"></div>
```

Accordion

1. Container-Level Classes

Class / Attribute	Used On	Meaning / Purpose
accordion	<div id="accordionExample">	Creates a Bootstrap accordion wrapper.
accordion-item	Each accordion section	Defines a single accordion item/block.

2. Header & Button Classes

Class / Attribute	Used On	Meaning / Purpose
accordion-header	<h2>	Wrapper for accordion button (not clickable itself).
accordion-button	<button>	Styled button that triggers expand/collapse.
collapsed	<button> (when closed)	Indicates collapsed state (Bootstrap adds/removes this).
data-bs-toggle="collapse"	<button>	Tells Bootstrap to toggle collapse behavior.
data-bs-target="#collapseOne"	<button>	Points to the element that will collapse/expand.

3. Collapsible Content Classes

Class / Attribute	Used On	Meaning / Purpose
accordion-collapse	<div>	Wrapper for collapsible content inside accordion.
collapse	<div>	Makes the content collapsible (hidden by default).
show	<div>	Makes this section visible by default.
id="collapseOne"	<div>	Unique ID used to match a button's data-bs-target.
data-bs-parent="#accordionExample"	<div>	Ensures only one accordion item opens at a time (auto-close others).

4. Content Body Classes

Class / Attribute	Used On	Meaning / Purpose
accordion-body	<div>	Provides padding, text formatting, and structure for the content inside each accordion panel.

Example:

```
<div class="accordion" id="accordionExample">

 <div class="accordion-item">
  <h2 class="accordion-header" >
   <button class="accordion-button" data-bs-toggle="collapse" data-bs-target="#collapseOne">
    Accordion Item #1
   </button>
  </h2>
  <div id="collapseOne" class="accordion-collapse collapse show" data-bs-parent="#accordionExample">
   <div class="accordion-body">
    <strong>This is the first item's accordion body.</strong> It is shown by default, until the collapse plugin adds the appropriate classes that we use to style each element.
   </div>
  </div>
 </div>

</div>
```

Note: To create more accordion items, copy the **.accordion-item** block and only change the **data-bs-target** and matching **id** values for each new item.

Chapter-7

Carousel

Classes and Attributes

Item	Meaning / Effect	Possible values / notes
id="carouselExampleCaptions"	Unique identifier used by indicators/controls to target this carousel	Any unique id; required to link controls/indicators
class="carousel"	Base Bootstrap carousel styling	required for component
class="slide"	Enables sliding animation (CSS/JS)	omit to disable slide animation
data-bs-ride="carousel"	Autostart the carousel on page load (autoplay)	omit if you want manual init; alternative: initialize via JS new bootstrap.Carousel
data-bs-pause="hover"	Now, when the mouse is over the carousel, it stops sliding.	hover
.carousel-indicators	Wrapper for indicator buttons (small dots)	optional . you can omit indicators
button data-bs-slide-to="n"	Jump to slide n (0-based)	n = 0,1,2,... must match number of slides

Item	Meaning / Effect	Possible values / notes
class="active" on indicator/item	Marks initial visible slide/indicator	Only on one slide/indicator
.carousel-inner	Slide container	required
.carousel-item	One slide wrapper	required for each slide
data-bs-interval="ms" on .carousel-item	Per-slide duration in milliseconds	e.g. 1000, 10000; overrides global interval 5000 ms(default).
<img class="d-block w-100">	d-block (display:block); w-100 (width:100%)	Replace w-100 with custom sizing or use object-fit for cropping
.carousel-caption	Positions caption area (bottom-center by default)	You can add text-start or text-end, or custom classes
.carousel-control-prev / .carousel-control-next	Prev/next control wrappers	Buttons recommended; can use <a> with role="button"
data-bs-target="#id" on controls	Targets the carousel id	Must match carousel id
data-bs-slide="prev" / "next"	Tells control direction	Only prev or next
.carousel-control-*-icon	Built-in icon visuals (uses background-image)	You can replace with custom icons (SVG/font icon)

- ✓ **One slide must have .active** — otherwise carousel is invisible initially.
- ✓ **Unique id**: indicators & controls must use data-bs-target matching the carousel id.
- ✓ **Autoplay**: data-bs-ride="carousel" will initialize automatically; if absent, call new bootstrap.Carousel(myEl) to enable touch/swipe events. Don't double-initialize.
- ✓ **Per-slide timing**: data-bs-interval on .carousel-item overrides the global interval for that slide.
- ✓ **Accessibility**: include alt text on images, and consider pause-on-hover or a visible pause button
- ✓ **Do not nest carousels** — nested carousels are unsupported.

Example

```
<div id="carouselExampleCaptions" class="carousel slide" data-bs-ride="carousel" data-bs-pause="hover">
```

```html
  <div class="carousel-indicators">

    <button  data-bs-target="#carouselExampleCaptions" data-bs-slide-to="0"
class="active"></button>
    <button  data-bs-target="#carouselExampleCaptions" data-bs-slide-to="1"></button>
    <button type="button" data-bs-target="#carouselExampleCaptions" data-bs-slide-
to="2"></button>
  </div>

  <!-- Container for the slides -->
  <div class="carousel-inner">

    <div class="carousel-item active" data-bs-interval="1000">
      <img src="1.jpg" class="d-block w-100 h-75" alt="First slide image description">
      <div class="carousel-caption">
        <h5>First slide label</h5>
        <p>Some representative placeholder content for the first slide.</p>
        <a href="#" class="btn btn-danger">View all</a>
      </div>
    </div>

  </div>

  <button class="carousel-control-prev" data-bs-target="#carouselExampleCaptions" data-bs-
slide="prev"><span class="carousel-control-prev-icon"></span> </button>

<button class="carousel-control-next" data-bs-target="#carouselExampleCaptions" data-bs-
slide="next"><span class="carousel-control-next-icon" ></span></button>

</div>
```

Note:

**To add more carousel slides, copy the entire .carousel-item section, paste it below, change
the image and text, and update the indicators. Only the first item should have the .active
class.**

Modal

Modal Container Classes

Class	Purpose
modal	Base class for modal
fade	Adds fade-in animation

Modal Dialog Classes

Class	Purpose
modal-dialog	Main wrapper for dialog box
modal-sm	Small modal (≈300px)
modal-lg	Large modal (≈800px)
modal-xl	Extra-large modal (≈1140px)
modal-fullscreen	Fullscreen modal on all sizes
modal-dialog-centered	Vertically centers the modal
modal-dialog-scrollable	Makes body scrollable; header/footer fixed

Modal Content Structure

Class	Purpose
modal-content	Wraps the entire content inside dialog
modal-header	Header section (title + close button)
modal-title	Title style
modal-body	Main content area
modal-footer	Footer (buttons like Save / Close)

Modal Triggers

Attribute	Purpose
data-bs-toggle="modal"	Opens a modal
data-bs-target="#id"	Specifies which modal to open
data-bs-dismiss="modal"	Closes the modal (used in buttons)

Example:

```html
<!-- Button trigger modal -->
<button class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#exampleModal">
  Launch demo modal
</button>

<!-- Modal -->
<div class="modal fade " id="exampleModal" >
  <div class="modal-dialog">

   <div class="modal-content">
    <div class="modal-header">
     <h1 class="modal-title fs-5" id="exampleModalLabel">Modal title</h1>
     <button type="button" class="btn-close" data-bs-dismiss="modal" ></button>
    </div>
    <div class="modal-body ">
    Lorem ipsum dolor sit amet consectetur adipisicing elit. Ratione reiciendis, perspiciatis quaerat tenetur rem placeat? Velit mollitia reiciendis officiis sunt asperiores? Alias, cumque tempora! A corrupti mollitia ad perferendis nobis.
      Lorem ipsum dolor sit, amet consectetur adipisicing elit. Fugit, obcaecati aliquid ratione saepe aspernatur nisi adipisci laudantium velit suscipit aperiam odio autem in laborum inventore possimus veniam eum quaerat officia.
    </div>
    <div class="modal-footer">
     <button class="btn btn-secondary" data-bs-dismiss="modal" >Close</button>
     <button class="btn btn-primary">Save changes</button>
    </div>
   </div>

  </div>
</div>
```

Example of where to add size classes

```html
<div class="modal-dialog modal-sm">
<div class="modal-dialog modal-fullscreen">
```

Combine Scroll + Center + Size

```html
<div class="modal fade" id="exampleModal">
  <div class="modal-dialog modal-dialog-centered modal-dialog-scrollable modal-sm">
   <div class="modal-content">
     Add long content here
   </div>
  </div>
</div>
```

Toggle Between Modals

```html
<button class="btn btn-primary" data-bs-target="#exampleModalToggle" data-bs-toggle="modal">Open first modal</button>

<div class="modal fade" id="exampleModalToggle">
    <button class="btn btn-primary" data-bs-target="#exampleModalToggle2" data-bs-toggle="modal">Open second modal</button>
</div>



<div class="modal fade" id="exampleModalToggle2" >
    <button class="btn btn-primary" data-bs-target="#exampleModalToggle" data-bs-toggle="modal">Back to first</button>
</div>
```

To toggle between modals, only change the data-bs-target to the ID of the modal you want to open. Each modal must have a unique ID. All other modal classes remain the same

Offcanvas Component

Classes and Attributes

Class / Attribute	Meaning / Function	Possible Values / Notes
offcanvas	Enables Bootstrap Offcanvas component	Must be the main wrapper div
offcanvas-start	Offcanvas slides in from **left**	offcanvas-start, offcanvas-end, offcanvas-top, offcanvas-bottom
id="offcanvasExample"	Unique ID for linking trigger buttons	Any valid ID
data-bs-toggle="offcanvas"	Activates offcanvas behavior	Used on link/button
href="#offcanvasExample"	For <a> triggers; opens the selected Offcanvas	Must match Offcanvas ID
data-bs-target="#offcanvasExample"	Used on <button> triggers	Same effect as href
offcanvas-header	Header area of offcanvas	Contains title + close button
offcanvas-title	Styles the title inside offcanvas header	Any text inside it
btn-close	Bootstrap close button	Used with data-bs-dismiss="offcanvas"
data-bs-dismiss="offcanvas"	Closes the offcanvas when clicked	Works on close button
offcanvas-body	Scrollable content area	Holds text, images, links, etc.
w-100	Image width 100%	Any width utility like w-50, w-auto
h-auto	Keeps natural image height	Alternatives: h-25, h-50, h-100
btn btn-primary / btn-danger	Styled Bootstrap buttons	btn-success, btn-dark, btn-secondary, etc.

Placement Classes

Placement Class	Where Offcanvas Appears
offcanvas-start	Slides in from **left**
offcanvas-end	Slides in from **right**
offcanvas-top	Slides in from **top**
offcanvas-bottom	Slides in from **bottom**

To see the effect of different placements, replace offcanvas-start with: offcanvas-end, offcanvas-top, or offcanvas-bottom.

Example:

```
<a class="btn btn-primary" data-bs-toggle="offcanvas" href="#offcanvasExample">
 Link with href
</a>
<button class="btn btn-danger" data-bs-toggle="offcanvas" data-bs-target="#offcanvasExample" >
 Button with data-bs-target
</button>
<div class="offcanvas offcanvas-start" id="offcanvasExample">
 <div class="offcanvas-header">
  <h5 class="offcanvas-title" >Offcanvas</h5>
  <button type="button" class="btn-close" data-bs-dismiss="offcanvas"></button>
 </div>
 <div class="offcanvas-body">
  <div>
   Some text as placeholder. In real life you can have the elements you have chosen. Like,
text, images, lists, etc.
  </div>
  <img src="1.jpg" class="w-100 h-auto" alt="test">
</div>
```

Forms

Category	Class / Attribute	Description
Form Control	form-control	Styles inputs & textareas
	form-control-sm / form-control-lg	Small / large inputs
	form-control-plaintext	Displays read-only plain text
Disabled Attribute	disabled *(HTML attribute)*	Disables the field, gives a gray appearance, removes pointer events, prevents focus & submission
Readonly Attribute	readonly *(HTML attribute)*	Makes input uneditable but still focusable; value is submitted
Labels & Help Text	form-label	Styles labels
	form-text	Helper text shown under an input
Select	form-select	Styles <select> dropdowns
	form-select-sm / form-select-lg	Small / large dropdown sizes
Checks & Radios	form-check	Wrapper for checkbox/radio
	form-check-input	Checkbox or radio input
	form-check-label	Label for checkbox/radio
	form-check-inline	Display items inline
	form-switch	Turns checkbox into a switch
Range	form-range	Styles range sliders
Input Group	input-group	Wraps inputs with addons
	input-group-text	Text or icon addon
Floating Labels	form-floating	Creates floating label layout
Layout Helpers	row, col-*	Grid layout classes
Validation	is-valid	Valid input styling
	is-invalid	Invalid input styling

Category	Class / Attribute	Description
	was-validated	Enables validation feedback
	valid-feedback / invalid-feedback	Messages for validation

Form fields and classes

Email field with floating label

```
<div class="form-floating">
  <input type="email" class="form-control" placeholder="Email">
  <label class="fw-bold">Email Address</label>
</div>
<div class="form-text">We'll never share your email with anyone else.</div>
```

Radio Buttons

```
<label class="form-label fw-bold">Gender</label>

<div class="form-check">
  <input class="form-check-input" type="radio" name="gender" value="male">
  <label class="form-check-label">Male</label>
</div>

<div class="form-check">
  <input class="form-check-input" type="radio" name="gender" value="female" checked>
  <label class="form-check-label">Female</label>
</div>
```

Switch

```
<div class="form-check form-switch">
  <input class="form-check-input" type="checkbox" value="newsletter" checked>
  <label class="form-check-label">Subscribe to newsletter</label>
</div>
```

🔵 Subscribe to newsletter

Validations

```
<form class="needs-validation">

  <div class="mb-3">
    <label class="form-label">Email</label>
    <input type="email" class="form-control" required>
  </div>

  <button class="btn btn-primary" type="submit">Submit</button>
 </form>
```

Note: Add "novalidate" class with "needs-validation" to disable default browser validations messages.

was-validated

```
<form class="was-validated" >
 <div>
  <label class="form-label">State</label>
  <select class="form-select" required>
   <option value="">Choose...</option>
   <option>Gujarat</option>
   <option>Maharashtra</option>
   <option>Punjab</option>
   <option>Karnataka</option>
  </select>
  <div class="valid-feedback">State selected.</div>
  <div class="invalid-feedback">Please choose a state.</div>
 </div>
<button class="btn btn-primary" type="submit">Submit</button>
</form>
```

If you use was-validated, then is-valid and is-invalid are NOT required.
Bootstrap will apply them automatically based on validity.

Navbar

Class / Attribute	Meaning / Function
navbar	Enables Bootstrap navbar component styling
navbar-expand-lg	Navbar expands on large screens and collapses on smaller screens
bg-dark	Applies a dark background color
navbar-dark	Makes text, links, and toggler icon light-colored (used with dark backgrounds)
navbar-light	Makes text, links, and toggler icon dark-colored (used with light backgrounds)
container-fluid	Full-width responsive container for navbar content
navbar-brand	Styles website logo/title section
d-inline-block	Displays logo image inline with navbar text
rounded-circle	Makes an image perfectly circular (often used with profile/logo images)
navbar-toggler	Creates the mobile hamburger toggle button
data-bs-toggle="collapse"	Tells toggler button to open/close a collapsible element
data-bs-target="#navbarSupportedContent"	Connects toggler button to the collapsible menu div
navbar-toggler-icon	The default Bootstrap hamburger icon
collapse	Makes an element collapsible
navbar-collapse	Proper styling for collapsible navbar menus
navbar-nav	Styles as a horizontal navbar menu
ms-auto	Pushes nav items to the right (margin-left: auto)
nav-item	Styles each navigation list item
nav-link	Styles hyperlinks inside navbar
active	Highlights the currently active page link
dropdown	Enables dropdown menu structure
dropdown-toggle	Turns a link into a dropdown trigger
data-bs-toggle="dropdown"	Activates dropdown toggle functionality

Class / Attribute	Meaning / Function
dropdown-menu	Container for dropdown links
dropdown-item	Styles individual items inside the dropdown
dropdown-divider	Adds a horizontal line separator inside dropdown
disabled	Makes a nav link unclickable
me-auto	Pushes items to the left (margin-right: auto) — opposite of ms-auto
fixed-top	Fixes navbar at the top of the page
fixed-bottom	Fixes navbar at the bottom of the page
sticky-top	Navbar sticks to top when scrolling past it (not supported in IE11)

Collapse classes

Class	Navbar expands (shows full menu) at	Collapses (hamburger) at
navbar-expand-sm	≥ 576px	< 576px
navbar-expand-md	≥ 768px	< 768px
navbar-expand-lg	≥ 992px	< 992px
navbar-expand-xl	≥ 1200px	< 1200px
navbar-expand-xxl	≥ 1400px	< 1400px
navbar-expand	Always expanded (never collapses)	Never collapses

Example: Collapsible Navbar With Dropdown

```
<nav class="navbar navbar-expand-lg bg-dark navbar-dark">

<div class="container-fluid">
   <a class="navbar-brand" href="#">
      <img src="n.png" alt="Logo" width="30" height="24" class="d-inline-block rounded-circle"> My Website
   </a>
   <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarSupportedContent">
      <span class="navbar-toggler-icon"></span>
   </button>
```

```html
<div class="collapse navbar-collapse" id="navbarSupportedContent">
 <ul class="navbar-nav ms-auto mb-2">
  <li class="nav-item">
   <a class="nav-link active" href="#">Home</a>
  </li>
  <li class="nav-item">
   <a class="nav-link" href="#">About</a>
  </li>

  <!—Dropdown  -->
  <li class="nav-item dropdown">
   <a class="nav-link dropdown-toggle" href="#"  data-bs-toggle="dropdown" >
    Projects
   </a>
   <ul class="dropdown-menu">
    <li><a class="dropdown-item" href="#">Staff</a></li>
    <li><a class="dropdown-item" href="#">Company</a></li>
    <li><hr class="dropdown-divider"></li>
    <li><a class="dropdown-item" href="#">Services</a></li>
   </ul>
  </li>

  <li class="nav-item">
   <a class="nav-link disabled">Contact</a>
  </li>

 </ul>
</div>
</div>
</nav>
```

Scrollspy

Code / Class / Attribute	Meaning / Purpose
<nav class="navbar navbar-expand-lg bg-dark fixed-top" id="scrollpage">	Creates a dark navbar that stays fixed at the top. id="scrollpage" allows Scrollspy to update this navbar.
navbar	Bootstrap navigation bar component.
navbar-expand-lg	Navbar expands on large screens; collapses on smaller ones.
bg-dark	Sets the navbar background to dark.
fixed-top	Navbar stays at the top during scroll.
id="scrollpage"	Scrollspy uses this navbar to highlight active links.
<ul class="navbar-nav nav-pills m-2">	Container for navigation links.
navbar-nav	Styles list items as navbar links.
nav-pills	**Enables Bootstrap's built-in active link highlighting (blue active tab). Needed to make active link visible.**
m-2	Adds margin.
<a class="nav-link text-white" href="#section1">	Each link points to a section ID. Scrollspy will highlight these.
nav-link	Styles the anchor as a Bootstrap navigation link.
text-white	Makes link text white.
active	Indicates the starting active link (Home). Scrollspy updates this dynamically.
<div data-bs-spy="scroll">	Activates Scrollspy functionality.
data-bs-target="#scrollpage"	Tells Scrollspy which navbar to update.
bg-success / bg-warning / bg-info	Background colors for each section.
<div id="section1">	Section anchor. Must match navbar link (href="#section1").

```
<body style="padding-top:70px ;">
    <nav class="navbar navbar-expand-lg bg-dark fixed-top" id="scrollpage">
        <div class="container-fluid">
```

```html
        <ul class="navbar-nav nav-pills m-2">
          <li class="nav-item ">
          <a class="nav-link active text-white" href="#section1">Home</a>
          </li>
          <li class="nav-item">
          <a class="nav-link text-white" href="#section2">About</a>
          </li>
          <li class="nav-item">
          <a href="#section3" class="nav-link text-white">Contact</a>
          </li>
        </ul>
      </div>
  </nav>

  <div data-bs-spy="scroll" data-bs-target="#scrollpage">

    <div id="section1" class="container-fluid bg-success text-white" style="height:800px;
padding: 100px;">
      <h1>Welcome to Home Section</h1>
      <p>Enjoy scrolling</p>
      </div>

      <div id="section2" class="container-fluid bg-warning text-white"
style="height:800px;padding: 100px;">
      <h1>Welcome to About Section</h1>
      <p>Enjoy scrolling</p>
      </div>

      <div id="section3" class="container-fluid bg-info text-white" style="height:800px;padding:
100px;">
      <h1>Welcome to Contact Section</h1>
      <p>Enjoy scrolling</p>
      </div>

  </div>
</body>
```

Pagination

Class	Where Used	Meaning / Purpose
pagination		Main Bootstrap pagination component container.
page-item		Wrapper for each pagination item/button.
page-link	<a>	The clickable pagination link/button.
active		Indicates the current/selected page.
disabled		Disables a link (not clickable).

Example:

```
<nav>
 <ul class="pagination">
  <li class="page-item disabled"><a class="page-link">Previous</a></li>
  <li class="page-item"><a class="page-link" href="#">1</a></li>
  <li class="page-item active"><a class="page-link" href="#">2</a></li>
  <li class="page-item"><a class="page-link" href="#">3</a></li>
  <li class="page-item"><a class="page-link" href="#">Next</a></li>
 </ul>
</nav>
```

Class	Effect
justify-content-start	Align pagination **left** (default).
justify-content-center	Center the pagination.
justify-content-end	Align pagination **right**.

Example:<ul class="pagination justify-content-center">

Class	Size
pagination-lg	Large pagination buttons
pagination-sm	Small pagination buttons
(no class)	Default size

Example:<ul class="pagination pagination-lg">