

# Bootstrap 5 Notes with Examples

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## 1. Introduction to Bootstrap 5

- What is Bootstrap? Bootstrap is a powerful front-end framework for faster and easier web development. It includes HTML, CSS, and JavaScript-based design templates.
  - Key Features
    - Mobile-first design
    - Responsive grid system
    - Pre-styled components
    - Utility classes
- 

## 2. Bootstrap Grid System

- **Overview:** The grid system uses containers, rows, and columns to layout and align content.
- **Basic Structure:**

```
<div class="container">
```

```
  <div class="row">
```

```
    <div class="col">Column 1</div>
```

```
    <div class="col">Column 2</div>
```

```
  </div>
```

```
</div>
```

- **Breakpoints:**
  - col- for all devices
  - col-sm- for small devices ( $\geq 576\text{px}$ )
  - col-md- for medium devices ( $\geq 768\text{px}$ )
  - col-lg- for large devices ( $\geq 992\text{px}$ )
  - col-xl- for extra large devices ( $\geq 1200\text{px}$ )
  - col-xxl- for extra-extra large devices ( $\geq 1400\text{px}$ )

### Example:

```
<div class="container">
```

```
  <div class="row">
```

```
    <div class="col-md-6">Column 1</div>
```

```
    <div class="col-md-6">Column 2</div>
```

```
  </div>
```

```
</div>
```

---

### 3. Bootstrap Typography

- **Headings:**

```
<h1>Heading 1</h1>
```

```
<h2>Heading 2</h2>
```

```
<h3>Heading 3</h3>
```

- **Display Headings:**

```
<h1 class="display-1">Display 1</h1>
```

```
<h1 class="display-2">Display 2</h1>
```

- **Text Utilities:**

- .text-start, .text-center, .text-end

- .text-muted for muted text

- .fw-bold, .fw-normal, .fw-light

**Example:**

```
<p class="text-muted">This is muted text.</p>
```

```
<p class="fw-bold text-center">This is bold and centered text.</p>
```

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### 4. Bootstrap Buttons

- **Button Variants:**

- .btn-primary

- .btn-secondary

- .btn-success

- .btn-danger

- .btn-warning

- .btn-info

- .btn-light

- .btn-dark

**Example:**

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

```
<button class="btn btn-success">Success Button</button>
```

- **Button Sizes:**

- .btn-lg (Large)

- .btn-sm (Small)

**Example:**

```
<button class="btn btn-primary btn-lg">Large Button</button>
```

```
<button class="btn btn-primary btn-sm">Small Button</button>
```

---

## 5. Bootstrap Forms

- **Form Basics:**

```
<form>
```

```
<div class="mb-3">
```

```
<label for="email" class="form-label">Email address</label>
```

```
<input type="email" class="form-control" id="email" placeholder="Enter email">
```

```
</div>
```

```
<div class="mb-3">
```

```
<label for="password" class="form-label">Password</label>
```

```
<input type="password" class="form-control" id="password"
placeholder="Password">
```

```
</div>
```

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

```
</form>
```

- **Inline Forms:**

```
<form class="row row-cols-lg-auto">

  <div class="col">

    <input type="text" class="form-control" placeholder="Username">

  </div>

  <div class="col">

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

  </div>

</form>
```

---

## 6. Bootstrap Utilities

- **Spacing:**

- .m-3 (Margin)
- .p-3 (Padding)

- **Flex Utilities:**

- .d-flex
- .justify-content-center
- .align-items-center

**Example:**

```
<div class="d-flex justify-content-center align-items-center" style="height: 100vh;">
```

Centered Content

```
</div>
```

- **Background Colors:**

- .bg-primary, .bg-success, .bg-danger

**Example:**

```
<div class="bg-primary text-white p-3">Primary Background</div>
```

---

## 7. Bootstrap Cards

- **Basic Card:**

```
<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.</p>

    <a href="#" class="btn btn-primary">Go somewhere</a>

  </div>

</div>
```

- **Card Groups:**

```
<div class="card-group">

  <div class="card">

    

    <div class="card-body">

      <h5 class="card-title">Card 1</h5>

      <p class="card-text">This is card 1 content.</p>

    </div>

  </div>

  <div class="card">

    

    <div class="card-body">

      <h5 class="card-title">Card 2</h5>

      <p class="card-text">This is card 2 content.</p>

    </div>

  </div>

</div>
```

---

## 8. Bootstrap Modals

- **Basic Modal Structure:**

```
<div class="modal fade" id="exampleModal" tabindex="-1"
aria-labelledby="exampleModalLabel" aria-hidden="true">

  <div class="modal-dialog">

    <div class="modal-content">

      <div class="modal-header">
```

```

        <h5 class="modal-title" id="exampleModalLabel">Modal
Title</h5>

        <button type="button" class="btn-close"
data-bs-dismiss="modal" aria-label="Close"></button>

    </div>

    <div class="modal-body">

        This is the modal body.

    </div>

    <div class="modal-footer">

        <button type="button" class="btn btn-secondary"
data-bs-dismiss="modal">Close</button>

        <button type="button" class="btn btn-primary">Save
changes</button>

    </div>

</div>

</div>
</div>

```

---

## 9. Bootstrap Navbars

- **Basic Navbar:**

```

<nav class="navbar navbar-expand-lg navbar-light bg-light">

    <div class="container-fluid">

        <a class="navbar-brand" href="#">Brand</a>

        <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target="#navbarNav">

            <span class="navbar-toggler-icon"></span>

```

```

        </button>

        <div class="collapse navbar-collapse" id="navbarNav">

            <ul class="navbar-nav">

                <li class="nav-item">

                    <a class="nav-link" href="#">Home</a>

                </li>

                <li class="nav-item">

                    <a class="nav-link" href="#">Features</a>

                </li>

            </ul>

        </div>

    </div>

</nav>

```

- **Navbar with Dropdown:**

```

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

    <div class="container-fluid">

        <a class="navbar-brand" href="#">Brand</a>

        <button class="navbar-toggler" type="button"
data-bs-toggle="collapse" data-bs-target="#navbarNavDropdown">

            <span class="navbar-toggler-icon"></span>

        </button>

        <div class="collapse navbar-collapse" id="navbarNavDropdown">

            <ul class="navbar-nav">

                <li class="nav-item">

```

```
        <a class="nav-link active" href="#">Home</a>

    </li>

    <li class="nav-item dropdown">

        <a class="nav-link dropdown-toggle" href="#"
role="button" data-bs-toggle="dropdown">Dropdown</a>

        <ul class="dropdown-menu">

            <li><a class="dropdown-item"
href="#">Action</a></li>

            <li><a class="dropdown-item" href="#">Another
action</a></li>

        </ul>

    </li>

</ul>

</div>

</div>

</nav>
```

---

## 10. Font Size

- **Font Size Utilities:**

- .fs-1 for largest font size
- .fs-2 to .fs-6 for smaller font sizes

### Example:

<p class="fs-1">This is the largest font size.</p>

<p class="fs-4">This is a medium font size.</p>

<p class="fs-6">This is the smallest font size.</p>

---



## 11. Bootstrap Offcanvas

- Basic Offcanvas Example:

```
<button type="button" class="btn btn-primary" data-bs-toggle="modal"
data-bs-target="#exampleModal">

    Launch Modal

</button>


<button class="btn btn-primary" type="button"
data-bs-toggle="offcanvas" data-bs-target="#offcanvasExample"
aria-controls="offcanvasExample">

    Toggle Offcannass

</button>


<div class="offcanvas offcanvas-start" tabindex="-1"
id="offcanvasExample" aria-labelledby="offcanvasExampleLabel">

    <div class="offcanvas-header">

        <h5 class="offcanvas-title"
id="offcanvasExampleLabel">Offcanvas</h5>

        <button type="button" class="btn-close"
data-bs-dismiss="offcanvas" aria-label="Close"></button>

    </div>

    <div class="offcanvas-body">

        <p>This is the content inside the offcanvas.</p>

    </div>

</div>
```

---

## 12. Bootstrap Slider

- Slider (Carousel) Example:

```
<div id="carouselExampleIndicators" class="carousel slide"
data-bs-ride="carousel">

  <div class="carousel-indicators">

    <button type="button"
data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0"
class="active" aria-current="true"></button>

    <button type="button"
data-bs-target="#carouselExampleIndicators"
data-bs-slide-to="1"></button>

    <button type="button"
data-bs-target="#carouselExampleIndicators"
data-bs-slide-to="2"></button>

  </div>

  <div class="carousel-inner">

    <div class="carousel-item active">

      

    </div>

    <div class="carousel-item">

      

    </div>

    <div class="carousel-item">

      

    </div>

  </div>

  <button class="carousel-control-prev" type="button"
data-bs-target="#carouselExampleIndicators" data-bs-slide="prev">

    <span class="carousel-control-prev-icon"
aria-hidden="true"></span>

    <span class="visually-hidden">Previous</span>

  </button>

  <button class="carousel-control-next" type="button"
data-bs-target="#carouselExampleIndicators" data-bs-slide="next">

    <span class="carousel-control-next-icon"
aria-hidden="true"></span>

    <span class="visually-hidden">Next</span>

  </button>

</div>
```

```

</button>

<button class="carousel-control-next" type="button"
data-bs-target="#carouselExampleIndicators" data-bs-slide="next">

    <span class="carousel-control-next-icon"
aria-hidden="true"></span>

    <span class="visually-hidden">Next</span>

</button>

</div>

```

### 13. Background Color

Color Name	Text Color Class	Background Color Class	Border Color Class	Description
Primary	text-primary	bg-primary	border-primary	A vibrant blue, often used for primary actions.
Secondary	text-secondary	bg-secondary	border-secondary	A muted gray color for secondary actions.
Success	text-success	bg-success	border-success	Green, used to indicate successful operations.
Danger	text-danger	bg-danger	border-danger	Red, often used for errors or destructive actions.
Warning	text-warning	bg-warning	border-warning	Yellow, to indicate potential risks or warnings.
Info	text-info	bg-info	border-info	Light blue, used for informational messages.
Light	text-light	bg-light	border-light	A light gray, suitable for light themes.

<b>Dark</b>	text-dark	bg-dark	border-dark	Black or near-black for dark themes.
<b>White</b>	text-white	bg-white	border-white	White, generally used with dark backgrounds.

#### Usage Examples:

- To set text color: `<p class="text-primary">This is a primary text</p>`
- To set background color: `<div class="bg-success text-white">Success Message</div>`
- To set border color: `<div class="border-danger">Border with danger color</div>`