

# **BOOTSTRAP - FULL NOTES WITH DEFINITIONS**

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**Current Version:** Bootstrap 5 (latest)

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## ◆ **What is Bootstrap?**

### **Definition:**

Bootstrap is a free, open-source front-end framework used to build **responsive** and **mobile-first websites** using HTML, CSS, and JavaScript. It simplifies web development by providing ready-made design components and utility classes.

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## ◆ **1. GRID SYSTEM**

one row me 2  
col=>row-cols-1

### **Definition:**

The grid system is used to structure the layout of a page using rows and columns.

- **1 row = 12 columns**
- **Breakpoints:** col-sm-, col-md-, col-lg-, col-xl-, col-xxl-
- **Classes:**
  - container, container-fluid
  - row
  - col, col-6, col-md-4, col-lg-3

equal division => col  
content ke equal  
width lene ke liye =>  
col-auto

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## ◆ **2. COLORS**

### ✓ **Text Colors**

#### **Used to apply color to text**

text-primary, text-secondary, text-success, text-danger, text-warning,  
text-info, text-light, text-dark

### ✓ **Background Colors**

#### **Used to apply background color**

bg-primary, bg-success, bg-danger, bg-warning, bg-dark, bg-light

### ✔ Background with Text Color

`text-bg-primary`, `text-bg-danger`, `text-bg-warning` etc.

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## ◆ 3. TEXT UTILITIES

### ✔ Font Sizes

`fs-1`, `fs-2`, `fs-3`, `fs-4`, `fs-5`, `fs-6` (from largest to smallest)

### ✔ Text Alignment

`text-start` (left) || `text-center` || `text-end` (right)

### ✔ Text Transform

`text-uppercase` || `text-lowercase` || `text-capitalize`

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## ◆ 4. SPACING UTILITIES (Padding & Margin)

### ✔ Padding Classes

Adds space **inside** an element

- `p-0` to `p-5` (all sides)
- `pt-3` (top), `pb-2` (bottom), `ps-4` (start), `pe-4` (end)
- `px-3` (left & right), `py-2` (top & bottom)

### ✔ Margin Classes

Adds space **outside** an element

- `m-0` to `m-5`
  - `mt-3`, `mb-2`, `ms-4`, `me-4`, `mx-3`, `my-2`
  - `mx-auto` → center horizontally
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## ◆ 5. WIDTH UTILITIES

Used to control width of an element in percentage

`w-25 || w-50 || w-75 || w-100 || w-auto`

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## ◆ 6. IMAGE UTILITIES

- `img-fluid` → Makes image responsive
  - `img-thumbnail` → Adds border and padding
  - `rounded, rounded-circle, rounded-pill` → For border-radius
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## ◆ 7. BUTTONS

✓ **Normal Buttons**

`btn btn-primary, btn btn-danger, btn btn-success, etc.`

✓ **Outline Buttons**

`btn btn-outline-primary, btn btn-outline-success, etc.`

✓ **Button Sizes**

`btn-lg, btn-sm`

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## ◆ 8. TYPOGRAPHY / HEADINGS

- HTML Headings: `<h1>` to `<h6>`
  - Display Headings: `display-1` to `display-6`
  - `lead` → Enlarged paragraph
  - Other tags: `<small>`, `<mark>`, `<abbr>`, `<blockquote>`
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## ◆ 9. FORMS

### ✓ Input Fields

- `form-control` → Input, textarea
- `form-select` → Dropdown
- `form-check`, `form-check-input`, `form-check-label` → Checkboxes/radio

### ✓ Input Group

- `input-group`, `input-group-text`, `input-group-prepend`, `input-group-append`

### ✓ Validation

- `is-valid`, `is-invalid`, `valid-feedback`, `invalid-feedback`
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## ◆ 10. COMPONENTS

### ✓ Alerts

`alert` `alert-primary`, `alert alert-danger`, `alert-dismissible`, `fade`, `show`, `btn-close`

### ✓ Navbar

- `navbar`, `navbar-brand`, `navbar-nav`, `nav-link`
- `navbar-expand-lg`, `bg-light`, `navbar-light`, `navbar-dark`
- `navbar-toggler`, `collapse`, `navbar-collapse`

### ✓ Cards

- `card`, `card-body`, `card-title`, `card-text`, `card-footer`

### ✓ Modals

- `modal`, `modal-dialog`, `modal-content`, `modal-header`, `modal-body`

### ✓ Dropdowns

- `dropdown`, `dropdown-toggle`, `dropdown-menu`, `dropdown-item`

### ✓ List Groups

- `list-group, list-group-item, active, disabled`
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## ◆ 11. FLEXBOX UTILITIES

Used to align items using flexbox model

- `d-flex, flex-row, flex-column`
  - `justify-content-start, justify-content-center, justify-content-between`
  - `align-items-start, align-items-center, align-items-end`
  - `order-1, order-2, etc.`
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## ◆ 12. DISPLAY UTILITIES

- `d-block, d-inline, d-inline-block, d-none, d-flex`
  - Responsive examples: `d-sm-none, d-md-block`
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## ◆ 13. POSITIONING & SHADOWS

- `position-relative, position-absolute, position-fixed, sticky`
- Shadow classes: `shadow, shadow-sm, shadow-lg, shadow-none`