

# Training Day 17

Day 17– 14th July 2025

## Introduction to Bootstrap and Responsive Frameworks

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### Detailed Description:

On Day 17, we explored **Bootstrap**, a front-end framework that provides **pre-designed CSS classes, components, and grid systems** to build responsive websites easily.

The instructor explained that Bootstrap saves time by eliminating the need to write complex CSS for layouts and components manually.

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### ◆ 1. Introduction to Bootstrap

Key points about Bootstrap:

- It is **mobile-first**, ensuring responsiveness by default.
- Provides **predefined classes** for layout, typography, buttons, forms, and more.
- Includes **JavaScript components** like modals, carousels, and tooltips.
- Can be included via **CDN** or downloaded locally.

### Including Bootstrap via CDN:

```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.5.0/dist/css/bootstrap.min.css" rel="stylesheet">
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.5.0/dist/js/bootstrap.bundle.min.js"></script>
```

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## ◆ 2. Bootstrap Grid System

We learned that Bootstrap uses a **12-column grid system** for layout:

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

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

```
<div class="col-md-4">Column 1</div>
```

```
<div class="col-md-4">Column 2</div>
```

```
<div class="col-md-4">Column 3</div>
```

```
</div>
```

```
</div>
```

- Columns automatically adjust for smaller screens.
  - Classes like col-sm-, col-md-, col-lg- define behavior on different screen sizes.
  - Helps create **responsive multi-column layouts** without writing custom CSS.
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## ◆ 3. Bootstrap Components

We explored some **pre-designed Bootstrap components**:

- **Buttons**

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

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

- **Cards**

```
<div class="card" style="width: 18rem;">



<div class="card-body">

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

  <p class="card-text">Card description goes here.</p>

</div>

</div>
```

- **Navbar**

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

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

</nav>
```

These components help **build professional-looking websites quickly**.

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## ◆ 4. Responsive Utilities

Bootstrap provides **classes to hide or show elements** depending on screen size:

```
<p class="d-none d-md-block">Visible only on medium and larger screens</p>
```

- Enables **adaptive designs** without writing extra CSS.

## ◆ 5. Practical Exercises

- Created a **responsive 3-column layout** using Bootstrap grid.
  - Added **buttons, cards, and navbar** components.
  - Practiced **adjusting layouts** for mobile, tablet, and desktop screens using Bootstrap classes.
  - Explored combining **Bootstrap with custom CSS** for unique styling.
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### Learning Outcomes:

- Learned the basics of **Bootstrap framework** for fast web development.
- Practiced the **12-column grid system** for responsive layouts.
- Explored pre-designed **components** like buttons, cards, and navbars.
- Learned **responsive utility classes** to control element visibility.
- Developed skills to build **mobile-first, professional websites** efficiently.