





## SIMPLIFYING WEB DEVELOPMENT WITH BOOTSTRAP

- Lesson Overview:
- In this lesson, we will be introduced to:
- 1. CSS Bootstrap layouts and utility classes
- 2. Customisation of Bootstrap default styles
- 3. Using Bootstrap pre-made components

## Accordion Example



#### Card Example





# WHAT IS BOOTSTRAP?

#### What is Bootstrap?

A popular open-source CSS framework for building responsive, mobile-first websites.

## Why use Bootstrap?

Speeds up development, offers pre-built components, and provides responsive design out-of-the-box.





# **BOOTSTRAP LAYOUT: THE GRID SYSTEM**

## What is the Bootstrap Grid System?

 A responsive, flexible layout system based on a 12column grid.

#### Key Concepts:

- Rows and Columns: Used to create structure.
- **Breakpoints**: Responsive layout for various devices (xs, sm, md, lg, xl).



## **BOOTSTRAP GRID EXAMPLE**

- Basic Structure:
- Explanation:

.container:

Wraps content to create margins and padding.

- .row:Defines a row of content.
- .col-md-6:
   Creates two equal-width columns on mediumsized screens (and larger).



## **UTILITY CLASSES**

#### What are Utility Classes?

Predefined Bootstrap classes that simplify applying common styles (e.g., spacing, display, colors).

### Examples:

.text-center, .p-3, .bg-light, .d-flex.

#### Use Case:

Quickly apply styles without writing custom CSS.

Demo...

```
<aside class="col-md-3 bg-light p-4">
     <h2>Sidebar</h2>
     This is the sidebar content.
</aside>
```



## **BOOTSTRAP CUSTOMIZATION: COLORS & FONTS**

#### Built-in Colors & Fonts:

- Bootstrap offers a set of predefined colors (e.g., primary, secondary, success).
- Standard typography with built-in fonts (e.g., font size, weight).

```
<button class="btn btn-primary me-2">Primary me-2">Pr
```



# OVERRIDING BOOTSTRAP WITH CUSTOM STYLES

#### Customizing Bootstrap:

You can override Bootstrap's default styles by adding your own CSS file after the Bootstrap link in the HTML.

```
<link href="bootstrap.css" rel="stylesheet">
<link href="custom.css" rel="stylesheet">
```



# **CUSTOMIZING COLORS EXAMPLE**

Customizing Colors Example:

**Use Case**: Apply custom branding or specific design elements.

```
.btn-primary {
  background-color: #0056b3;
  border-color: #004085;
}
```



# **CUSTOM FONTS EXAMPLE**

How to Change Fonts:

You can apply custom fonts by adding them to your CSS file

 Use Case: Branding-specific fonts that aren't included in Bootstrap by default.

Demo...

```
body {
  font-family: 'Roboto', sans-serif;
}
```



# **USING BOOTSTRAP COMPONENTS**

- What are Bootstrap Components?
  - Pre-built UI elements like buttons, navbars, modals, carousels, and cards.
  - Easy to implement, responsive, and customizable.

# **Progress Bar Example**

50%

**Spinners Example** 

C



# **EXAMPLES OF BOOTSTRAP COMPONENTS**

Button

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

Navbar

```
<nav class="navbar navbar-expand-lg navbar-light bg-light">
        <a class="navbar-brand" href="#">Navbar</a>
</nav>
```



## WHY BOOTSTRAP COMPONENTS SPEED UP DEVELOPMENT

#### Consistency:

Ensures design consistency across the site.

#### Time Saving:

Pre-built components reduce the need to write complex CSS from scratch.

#### Responsiveness:

Components adapt to different screen sizes by default.

 Ease of Customization: All components can be customized with Bootstrap's utility classes or your custom CSS.



# CONCLUSION

### Grid System:

Create responsive layouts using Bootstrap's columns and rows.

#### Customisation:

Modify colors, fonts, and styles easily with your custom CSS.

#### Components:

Use pre-built UI elements to speed up development.

Official Bootstrap Documentation:

https://getbootstrap.com/



# QUESTIONS?