

## **Don Bosco Institute of Technology**

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Internet Programming

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Date: 22/08/25

Experiment No.: 5

### **Title:**

Design a web pages using Bootstrap

### **Problem Definition:**

Design web pages using Bootstrap framework implementing Grid system, Forms, Buttons, and Navbar.

### **Pre-requisites:**

1. Understanding of HTML5 and CSS3 basics
2. Basic knowledge of responsive design concepts
3. Familiarity with Bootstrap framework structure
4. A text editor or IDE and a modern web browser
5. Internet connection to include Bootstrap CDN or downloaded Bootstrap files

### **Theory:**

Bootstrap is a popular front-end open-source framework used for developing responsive and mobile-first web pages. It provides pre-styled components and a grid system for easier design and faster development.

Key Bootstrap Features used in this experiment:

- Grid System: Bootstrap uses a 12-column grid system with responsive breakpoints (xs, sm, md, lg, xl) to create layouts.
- Forms: Pre-styled form elements such as input fields, checkboxes, radio buttons, and validation classes.
- Buttons: Various button classes like btn, btn-primary, btn-success, btn-danger, and customization options.

- Navbar: Responsive navigation bar with support for branding, links, dropdowns, and toggler for smaller screens.

**Procedure:**

1. Create a new HTML file and include Bootstrap via CDN in the <head> section.
2. Implement the Bootstrap grid system using <div class='container'>, <div class='row'>, and <div class='col'> classes.
3. Add form elements styled with Bootstrap classes (form-control, form-group, etc.).
4. Insert buttons using predefined classes like btn btn-primary and customize their appearance.
5. Create a responsive navigation bar using <nav class='navbar'> and related classes.
6. Test the webpage in a browser and resize the window to verify responsiveness.
7. Refine the design and ensure all components are functioning correctly.
8. Save final files and capture screenshots of the results.

**Program:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Bootstrap Example Page</title>
  <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css"
    rel="stylesheet"
  />
</head>
<body>
  <nav class="navbar navbar-expand-lg navbar-dark bg-primary">
    <div class="container">
      <a class="navbar-brand" href="#">MyWebsite</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 justify-content-end" id="navbarNav">
        <ul class="navbar-nav">
          <li class="nav-item"><a class="nav-link active" href="#">Home</a></li>
          <li class="nav-item"><a class="nav-link" href="#">Features</a></li>
          <li class="nav-item"><a class="nav-link" href="#">Pricing</a></li>
          <li class="nav-item"><a class="nav-link" href="#">Contact</a></li>
        </ul>
      </div>
    </div>
  </nav>

  <div class="container mt-5">
    <div class="row g-4">
      <div class="col-md-8">
        <h2 class="mb-3">Welcome to My Page</h2>
```

```
<p class="mb-4">
  This page demonstrates the usage of Bootstrap Grid System, Navbar,
  Forms, and Buttons.
</p>
<div class="row g-3">
  <div class="col-md-6">
    <div class="p-4 bg-light border text-center rounded">Column 1</div>
  </div>
  <div class="col-md-6">
    <div class="p-4 bg-secondary text-white border text-center rounded">
      Column 2
    </div>
  </div>
</div>
<div class="col-md-4">
  <div class="card shadow">
    <div class="card-body">
      <h5 class="card-title text-center mb-4">Sign Up Form</h5>
      <form>
        <div class="mb-3">
          <label for="username" class="form-label">Username</label>
          <input
            type="text"
            class="form-control"
            id="username"
            placeholder="Enter username"
          />
        </div>
        <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="Enter password"  
/>  
</div>  
<div class="d-flex justify-content-between">  
    <button type="submit" class="btn btn-primary w-50 me-  
2">Submit</button>  
    <button type="reset" class="btn btn-danger w-50">Reset</button>  
</div>  
</form>  
</div>  
</div>  
</div>  
</div>  
</div>  
  
<footer class="bg-primary text-white text-center py-3 mt-5">  
    <p class="mb-0">&copy; 2025 MyWebsite. All rights reserved.</p>  
</footer>  
  
<script  
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min  
.js"></script>  
</body>  
</html>
```

## **Output:**

The screenshot displays a responsive web application interface. At the top is a blue header bar with the text "MyWebsite" on the left and "Home Features Pricing Contact" on the right. Below the header is a section titled "Welcome to My Page" with a subtitle: "This page demonstrates the usage of Bootstrap Grid System, Navbar, Forms, and Buttons." This section contains two columns: "Column 1" (light gray background) and "Column 2" (dark gray background). To the right of this is a "Sign Up Form" card with fields for "Username" (placeholder "Enter username"), "Email address" (placeholder "Enter email"), and "Password" (placeholder "Enter password"). It includes a "Submit" button (blue) and a "Reset" button (red). At the bottom of the page is a blue footer bar with the copyright notice: "© 2025 MyWebsite. All rights reserved."

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## **Results:**

Successfully created responsive web pages using Bootstrap Grid system, Forms, Buttons, and Navbar.

## **References:**

1. <https://getbootstrap.com/>
2. <https://www.w3schools.com/bootstrap/>
3. [https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS\\_layout/Responsive\\_Design](https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Responsive_Design)