

K. J. Somaiya College of Engineering, Mumbai-77

(A Constituent College of Somaiya Vidyavihar University)

Batch: E-2 Roll No.: 16010123325

Experiment No. 03

TITLE: Demonstrate the use of Bootstrap

AIM: To use bootstrap (open source front-end development framework) for the creation of web pages.

Expected Outcome of Experiment: Re-design of web pages using various HTML, CSS tags with bootstrap.

Books/ Journals/ Websites referred:

<http://getbootstrap.com/getting-started>

Problem Statement:

1. **Students have to re-design web-pages developed in Experiment 1 and 2 by using bootstrap.**
2. **Create a webpage using bootstrap with following features,**
 - i) use a container to set the content's margins dealing with the responsive behaviors of layout.
 - ii) shape the image into a circle
 - iii) use bootstrap grid system
 - iv) create basic pagination
 - v) insert search icon(glyphicon)

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Description of the application implemented with output:

ECOLEARN is a responsive, Bootstrap-based educational landing page designed to promote awareness and learning about environmental issues. It utilizes modern web technologies to offer an aesthetically appealing and informative user interface, aimed at encouraging users to explore eco-conscious topics.

Code-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>ECOLEARN - Environmental Education Platform</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

        <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0/css/all.min.css">
    <style>
        :root {
            --primary-color: #2A9D8F;
            --secondary-color: #264653;
        }

        .hero-section {
            background: linear-gradient(rgba(42, 157, 143, 0.8), rgba(38, 70, 83, 0.9)), url('https://source.unsplash.com/1600x900/?nature,environment');
            background-size: cover;
            height: 100vh;
            color: white;
        }

        .navbar {
            background-color: var(--secondary-color) !important;
        }

        .btn-success {
            background-color: var(--primary-color);
            border-color: var(--primary-color);
        }

        .btn-success:hover {
            background-color: #238276;
            border-color: #238276;
        }

        .student-info {
            position: fixed;
            bottom: 20px;
            right: 20px;
            background-color: rgba(42, 157, 143, 0.9);
            color: white;
            padding: 30px;
            border-radius: 5px;
            box-shadow: 0 2px 5px rgba(0,0,0,0.2);
        }
    </style>
</head>
<body>
```

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```

<nav class="navbar navbar-expand-lg navbar-dark bg-dark fixed-top">
    <div class="container">
        <a class="navbar-brand" href="#">
            <i class="fas fa-earth-americas me-2"></i>
            ECOLEARN
        </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 ms-auto">
                <li class="nav-item"><a class="nav-link"
                href="#">Home</a></li>
                <li class="nav-item"><a class="nav-link"
                href="#">Courses</a></li>
                <li class="nav-item"><a class="nav-link"
                href="#">About</a></li>
                <li class="nav-item"><a class="nav-link"
                href="#">Contact</a></li>
            </ul>
        </div>
    </div>
</nav>

<section class="hero-section d-flex align-items-center">
    <div class="container text-center">
        <h1 class="display-1 mb-4">
            <i class="fas fa-leaf me-3"></i>ECOLEARN
        </h1>
        <h2 class="mb-4 fw-light">Nurturing Knowledge, Growing Future</h2>
        <p class="lead mb-5">Join us in building a sustainable tomorrow
        through education</p>
        <button class="btn btn-custom btn-lg me-3 px-4 py-2">Start
        Learning</button>
        <button class="btn btn-outline-light btn-lg px-4 py-2">Explore
        Courses</button>
    </div>
</section>

<section class="container my-5">
    <div class="row">
        <div class="col-md-4 mb-4">
            <div class="card">
                <div class="card-body">
                    <h5 class="card-title">Sustainable Living</h5>
                    <p class="card-text">Learn how to live a sustainable
                    life and reduce your carbon footprint.</p>
                    <a href="#" class="btn btn-success">Enroll Now</a>
                </div>
            </div>
        </div>
        <div class="col-md-4 mb-4">
            <div class="card">
                <div class="card-body">
                    <h5 class="card-title">Marine Conservation</h5>
                    <p class="card-text">Understand the importance of
                    marine ecosystems and their conservation.</p>
                    <a href="#" class="btn btn-success">Enroll Now</a>
                </div>
            </div>
        </div>
    </div>
</section>

```

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```
<div class="col-md-4 mb-4">
    <div class="card">

        <div class="card-body">
            <h5 class="card-title">Waste Management</h5>
            <p class="card-text">Learn effective waste management techniques for a cleaner environment.</p>
            <a href="#" class="btn btn-success">Enroll Now</a>
        </div>
    </div>
</div>
</section>

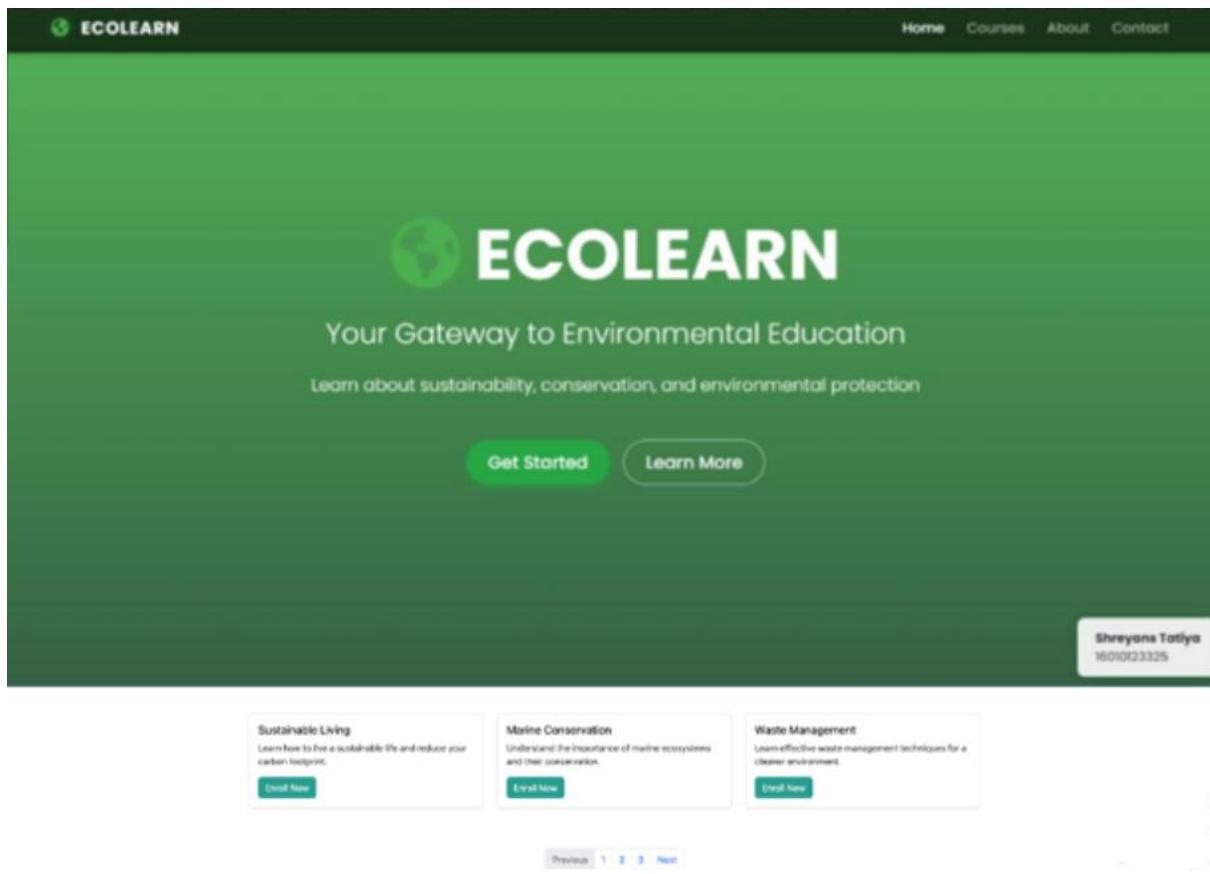
<nav aria-label="Page navigation example">
    <ul class="pagination justify-content-center">
        <li class="page-item disabled">
            <a class="page-link" href="#" tabindex="-1" aria-disabled="true">Previous</a>
        </li>
        <li class="page-item"><a class="page-link" href="#">1</a></li>
        <li class="page-item"><a class="page-link" href="#">2</a></li>
        <li class="page-item"><a class="page-link" href="#">3</a></li>
        <li class="page-item">
            <a class="page-link" href="#">Next</a>
        </li>
    </ul>
</nav>

<div class="student-info text-light">
    <p class="mb-3"><strong>Shreyans Tatiya </strong></p>
    <p class="mb-3">16010123325</p>
</div>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

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Output-



The screenshot shows the homepage of the ECOLEARN website. At the top, there is a navigation bar with links for Home, Courses, About, and Contact. Below the navigation bar is a large green header section featuring the ECOLEARN logo (a globe icon) and the text "ECOLEARN" in large white letters, followed by "Your Gateway to Environmental Education". A subtext below it reads "Learn about sustainability, conservation, and environmental protection". There are two buttons at the bottom of this section: "Get Started" and "Learn More". In the bottom right corner of the green header, there is a user profile box for "Shreyans Tatiya" with the ID "1601023325". Below the green header, there are three white rectangular boxes representing course categories: "Sustainable Living", "Marine Conservation", and "Waste Management", each with a "Enroll Now" button.

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Post Lab Questions:

1. What is the use of containers in bootstrap? Explain in detail.

Containers are used to wrap content and provide **spacing and alignment** in Bootstrap layouts. They help structure your page and are required for using the grid system.

Types:

- **.container** – Fixed width, responsive at each breakpoint.
- **.container-fluid** – Full width across all screen sizes.
- **.container-{breakpoint}** – 100% width until the specified breakpoint (e.g., .container-md).

2. Name the classes to achieve the different button styles in bootstrap.

Use the base class `.btn` with style classes:

Class	Style
<code>.btn-primary</code>	Blue – primary action
<code>.btn-secondary</code>	Gray – secondary action
<code>.btn-success</code>	Green – success messages
<code>.btn-danger</code>	Red – error or delete
<code>.btn-warning</code>	Yellow – warnings
<code>.btn-info</code>	Teal – info messages
<code>.btn-light</code>	Light gray background
<code>.btn-dark</code>	Dark background
<code>.btn-link</code>	Styled like a hyperlink

3. Write details about the Bootstrap Grid system.

The grid system in Bootstrap helps create responsive layouts using rows and columns.

- Based on 12 columns.
- Use `.row` to create a row, and `.col`, `.col-6`, etc., to define columns.
- Responsive classes like `.col-sm-`, `.col-md-`, `.col-lg-`, etc., adjust layouts on different screen sizes.

Example:

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

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

</div>

This creates two equal columns on medium and larger screens.