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| **Course Name:** | **Web Programming Laboratory** | **Semester:** | **V** |
| **Date of Performance:** | **12 / 08 / 2024** | **Batch No:** | **B - 1** |
| **Faculty Name:** | **Prof. Madhura Pednekar** | **Roll No:** | **16014022050** |
| **Faculty Sign & Date:** |  | **Grade / Marks:** | **\_\_\_ / 25** |

**Experiment No: 2**

**Title: Demonstrate use of Bootstrap**

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| **Aim and Objective of the Experiment:** |
| **To use bootstrap (open-source front-end development framework) for the creation of web pages.** |

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| **COs to be achieved:** |
| **CO2:** Design responsive webpages using HTML, CSS, and Bootstrap, improving user inter faces. |

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| **Apparatus / Software Used:** |
| * **VS Code** |

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| **Problem Statement:** |
| 1. **Students have to re-design web-pages developed in Experiment 1 by using Bootstrap.** 2. **Implement a static webpage for the Retail Store management system using Bootstrap.** |

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| **HTML tags used:** |
| Few of the HTML tags used were -   <!DOCTYPE html>, <html>, <head>, <meta>, <title>, <link>, <body>, <header>, <nav>, <ul>, <li>, <a>, <main>, <section>, <h2>, <div>, <img>, <p> |

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| **Code:** |
| **custom&nooke.html –**  <!doctype html>  <html lang="en">    <head>      <meta charset="utf-8">      <meta name="viewport" content="width=device-width, initial-scale=1.0">      <title>custom&nooke</title>      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhjY6hW+ALEwIH" crossorigin="anonymous">      <link href="https://fonts.googleapis.com/css2?family=PT+Serif:wght@400&display=swap" rel="stylesheet">      <link rel="stylesheet" href="styles1.css">    </head>      <body>      <body>        <div class="customnook-bg">          <img src="img/sofa.jpg" alt="sofa">          <img src="img/custom&nookelogo.png" alt="Custom&Nooke Logo" class="header-logo">          <div class="handmade-text" style="line-height: 1;">Handmade for <br>your home</div>          <button class="shop-button" onclick="window.location.href='shop.html';">Shop</button>        </div>      <div class="consciously-crafted">        <img src="img\chairr.png" alt="chair">        <div class="consciously-crafted-text">          <h2>Consciously<br>Crafted</h2>          <p>Handmade and made-to-measure, each piece from Custom & Nooke is personal and unlike any other. Inspired by the clean lines, cozy feel, and monochromatic palette of a modern minimalist home, we ensure every single piece reflects the passion and craftsmanship we spent years developing and perfecting.</p>        </div>      </div>        <div class="thoughtful-functional">        <div class="row">          <div class="col-md-4">            <h2>Thoughtful <br>& Functional</h2>            <button class="btn view-products-button" onclick="window.location.href='shop.html';">View Products</button>          </div>          <div class="col-md-8">            <div class="row g-3">              <div class="col-md-4">                <img src="img\stoneware.png" class="img-fluid" alt="stoneware">                <h3>Stoneware</h3>                <p>Artisanal designs that make every day a feast</p>              </div>              <div class="col-md-4">                <img src="img\furniture.png" class="img-fluid" alt="furniture">                <h3>Furniture</h3>                <p>Casual yet sophisticated pieces for every room in the house</p>              </div>              <div class="col-md-4">                <img src="img\decor.png" class="img-fluid" alt="decor">                <h3>Decor</h3>                <p>Tasteful elements to mix and match for an elevated look</p>              </div>            </div>          </div>        </div>      </div>        <div class="home-owners">        <h2>Loved by <br>Homeowners</h2>        <div class="row g-3">          <div class="col-md-4">            <img src="img/home1.png" class="img-fluid" alt="Sari Purdue">            <h3>Sari Purdue</h3>            <p>"Meals with my family are always extra special              because of the beautiful plates I got from              Custom & Nooke."</p>          </div>          <div class="col-md-4">            <img src="img/home2.png" class="img-fluid" alt="Musa Watson">            <h3>Musa Watson</h3>            <p>"Very pleased with my new sofa--the quality is great,              it's comfortable,              and elevates the look of my home."</p>          </div>          <div class="col-md-4">            <img src="img/home3.png" class="img-fluid" alt="Freya Moore">            <h3>Freya Moore</h3>            <p>"I love how timeless my decor are.              I just need to move things around to update              the look of my space."</p>          </div>        </div>      </div>      <footer class="footer">        <div class="container">          <div class="row">            <div class="col-md-6">              <h3>Get in Touch</h3>              <p>If you have any questions or need further information, feel free to reach out to us.</p>              <form action="your-form-handler-url" method="post">                <div class="mb-3">                  <label for="name" class="form-label">Name</label>                  <input type="text" class="form-control" id="name" name="name" required>                </div>                <div class="mb-3">                  <label for="email" class="form-label">Email</label>                  <input type="email" class="form-control" id="email" name="email" required>                </div>                <div class="mb-3">                  <label for="message" class="form-label">Message</label>                  <textarea class="form-control" id="message" name="message" rows="4" required></textarea>                </div>                <button type="submit" class="btn btn-primary">Send Message</button>              </form>            </div>          </div>        </div>      </footer>            <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jIeHz" crossorigin="anonymous"></script>    </body>  </html>  **styles1.css –**  .customnook-bg {    position: relative;    text-align: center;    width: 100%;    height: auto;  }  .customnook-bg img {    width: 100%;    height: auto;    object-fit: contain;  }  .header-logo {    position: absolute;    top: 20px;    left: 20px;    max-width: 100px;    height: auto;    z-index: 1;  }  .handmade-text {    font-family: 'PT Serif', serif;    font-size: 80pt;    color: #ffffff;    position: absolute;    top: 50%;    right: 0;    transform: translate(-5%, -50%);    z-index: 2;    white-space: nowrap;    text-align: right;  }  .shop-button {    font-family: 'HK Grotesk', sans-serif;    background-color: #dd9d4c;    color: #ffffff;    padding: 7px 50px;    border: none;    font-size: 15pt;    position: absolute;    top: 60%;    left: 50%;    transform: translate(345%, 150%);    z-index: 3;    cursor: pointer;    text-transform: uppercase;  }  .shop-button:hover {    background-color: #c28a3f;  }  .consciously-crafted {    background-color: #f5f1ed;    padding: 65px;    display: flex;    align-items: center;  }  .consciously-crafted img {    max-width: 100%;    height: auto;    display: block;    margin-right: 30px;  }  h2 {    font-family: 'PT Serif', serif;    font-size: 50pt;    margin: 0 0 20px 0;  }  p {    font-family: 'HK Grotesk', sans-serif;    font-size: 10pt;    line-height: 1.5;    margin: 0;  }  .thoughtful-functional {    background-color: #fcf8f5;    padding: 190px;  }  .thoughtful-functional h2 {    font-family: 'PT Serif', serif;    font-size: 40pt;    margin-bottom: 20px;  }  .view-products-button {    font-family: 'HK Grotesk', sans-serif;    background-color: #dd9d4c;    color: #ffffff;    padding: 10px 20px;    font-size: 14pt;    text-transform: uppercase;    border: none;    border-radius: 0;  }  .view-products-button:hover {    background-color: #c28a3f;  }  .img-fluid {    width: 261px;    height: 326px;    object-fit: cover;  }  h3 {    font-family: 'HK Grotesk', sans-serif;    font-size: 15pt;    font-weight: bold;    margin: 10px 0;  }  p {    font-family: 'HK Grotesk', sans-serif;    font-size: 12pt;    margin: 0;  }  .home-owners {    padding: 150px 200px;    background-color: #f5f1ed;  }  .home-owners h2 {    font-family: 'PT Serif', serif;    font-size: 40pt;    margin-bottom: 40px;    text-align: left;  }  .home-owners .row {    justify-content: center;  }  .home-owners img {    width: 100%;    height: auto;    max-height: 300px;    object-fit: cover;    margin-bottom: 15px;  }  .home-owners h3 {    font-family: 'HK Grotesk', sans-serif;    font-size: 13pt;    font-weight: bold;    margin: 10px 0;    text-align: left;  }  .home-owners p {    font-family: 'HK Grotesk', sans-serif;    font-size: 10pt;    font-style: italic;    margin: 0;    text-align: left;  }  .footer {    background-color: #201f1f;    color: #fff;    padding: 40px 0;  }  .footer h3 {    font-family: 'PT Serif', serif;    font-size: 24pt;    margin-bottom: 30px;  }  .footer p {    font-family: 'HK Grotesk', sans-serif;    font-size: 14pt;    margin-bottom: 15px;  }  .footer .form-control {    border-radius: 0;    margin-bottom: 15px;  }  .footer .btn-primary {    background-color: #dd9d4c;    border-color: #dd9d4c;    font-family: 'HK Grotesk', sans-serif;    border-radius: 0;  }  .footer .btn-primary:hover {    background-color: #c28a3f;    border-color: #c28a3f;  }  .footer .col-md-6 {    padding: 0 15px;  }  .container {    max-width: 1200px;    margin: 0 auto;  }  **shop.html –**  <!doctype html>  <html lang="en">    <head>      <meta charset="utf-8">      <meta name="viewport" content="width=device-width, initial-scale=1.0">      <title>shop</title>      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-QWTKZyjpPEjISv5WaRU9OFeRpok6YctnYmDr5pNlyT2bRjXh0JMhjY6hW+ALEwIH" crossorigin="anonymous">      <link href="https://fonts.googleapis.com/css2?family=PT+Serif:wght@400&display=swap" rel="stylesheet">      <link rel="stylesheet" href="styles2.css">    </head>      <body>      <header class="bg-dark text-light py-3">          <nav class="navbar navbar-expand-lg navbar-dark">            <a class="navbar-brand" href="#">              <img src="img/custom&nookelogo.png" alt="Custom & Nooke Logo" class="header-logo">            </a>            <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-label="Toggle navigation">              <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="#">Furniture</a>                </li>                <li class="nav-item">                  <a class="nav-link" href="#">Decor</a>                </li>                <li class="nav-item">                  <a class="nav-link" href="#">Stoneware</a>                </li>                <li class="nav-item">                  <a class="nav-link" href="#">Contact</a>                </li>              </ul>            </div>          </nav>        </header>        <div class="container my-5">        <div class="row g-4">          <!-- Product 1 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\chair.jpg" class="card-img-top" alt="Product 1">              <div class="card-body text-center">                <h5 class="card-title">Chair & Leg Rest</h5>                <p class="card-text">$150.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 2 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\chairr.png" class="card-img-top" alt="Product 2">              <div class="card-body text-center">                <h5 class="card-title">Desk Chair</h5>                <p class="card-text">$200.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 3 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\hero.jpg" class="card-img-top" alt="Product 3">              <div class="card-body text-center">                <h5 class="card-title">Evergreen Sofa</h5>                <p class="card-text">$180.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 4 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\home3.jpg" class="card-img-top" alt="Product 4">              <div class="card-body text-center">                <h5 class="card-title">Wooden Dining</h5>                <p class="card-text">$250.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 5 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\rug.jpg" class="card-img-top" alt="Product 5">              <div class="card-body text-center">                <h5 class="card-title">Rug</h5>                <p class="card-text">$120.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 6 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\seating\_2.jpg" class="card-img-top" alt="Product 6">              <div class="card-body text-center">                <h5 class="card-title">Beige Sofa</h5>                <p class="card-text">$220.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 7 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\table.jpg" class="card-img-top" alt="Product 7">              <div class="card-body text-center">                <h5 class="card-title">Dining</h5>                <p class="card-text">$175.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 8 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\home2.png" class="card-img-top" alt="Product 8">              <div class="card-body text-center">                <h5 class="card-title">Tan Sofa</h5>                <p class="card-text">$210.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 9 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\home1.png" class="card-img-top" alt="Product 9">              <div class="card-body text-center">                <h5 class="card-title">China Plates</h5>                <p class="card-text">$160.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>          <!-- Product 10 -->          <div class="col-md-4">            <div class="card border-0 shadow-sm">              <img src="img\home3.png" class="card-img-top" alt="Product 10">              <div class="card-body text-center">                <h5 class="card-title">Tray</h5>                <p class="card-text">$190.00</p>                <a href="#" class="btn btn-custom">Buy Now</a>              </div>            </div>          </div>        </div>      </div>      <footer class="footer bg-dark text-light py-4">        <div class="container text-center">          <p>&copy; 2024 Custom & Nooke. All rights reserved.</p>        </div>      </footer>      <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-YvpcrYf0tY3lHB60NNkmXc5s9fDVZLESaAA55NDzOxhy9GkcIdslK1eN7N6jIeHz" crossorigin="anonymous"></script>    </body>  </html>  **styles2.css –**  body {      font-family: 'PT Serif', serif;      color: #201f1f;      background-color: #f5f1ed;  }    header {      background-color: #201f1f;  }    .navbar {      padding: 0 15px;  }    .header-logo {      max-width: 100px;      height: auto;  }    .navbar-brand {      margin-left: 15px;  }    .navbar-nav .nav-link {      color: #ffffff;  }    .navbar-nav .nav-link:hover {      color: #dd9d4c;  }    .card {      border: none;      border-radius: 0;      box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);  }    .card-img-top {      height: 200px;      object-fit: cover;  }    .card-body {      background-color: #ffffff;      text-align: center;  }    .card-title {      font-family: 'PT Serif', serif;      font-size: 13pt;      color: #201f1f;  }    .card-text {      font-family: 'PT Serif', serif;      font-size: 11pt;      margin: 10px 0;  }    .btn-custom {      background-color: #dd9d4c;      border-color: #dd9d4c;      color: #ffffff;      border-radius: 0;  }    .btn-custom:hover {      background-color: #c28a3f;      border-color: #c28a3f;  }    footer {      background-color: #201f1f;      color: #ffffff;  }    .navbar-nav .nav-item {      padding-right: 80px;  } |

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| **Stepwise-Procedure / Algorithm:** |
| **Landing Page**   1. **Create HTML Structure**: index.html 2. **Header**: Background image, logo, and text. 3. **Sections**:    * Consciously Crafted: Image + text.    * Thoughtful & Functional: Bootstrap grid for images + text.    * Homeowners Testimonials: Grid layout for testimonials. 4. **Footer**: Contact info or form.   **Shop Page**   1. **Create HTML Structure**: shop.html 2. **Navbar**: Links to Furniture, Decor, Stoneware, Contact. 3. **Product Grid**: 3 products per row with image, name, and price. 4. **Footer**: Consistent with landing page.   Adjust CSS for styling and consistency. |

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| **Output:** |
| **Landing page:**            **Shop page:** |

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| **Post Lab Subjective/Objective type Questions:** |
| 1. **What is the use of containers in bootstrap? Explain in detail.**   Containers in Bootstrap are fundamental for creating responsive layouts. They are used to center and horizontally pad your content. Containers serve as the base for creating a responsive grid system and align content within the page. There are two main types of containers in Bootstrap:   * .container: This is a fixed-width container that adapts to different screen sizes. It has a maximum width that changes at different breakpoints (e.g., small, medium, large, extra-large). * .container-fluid: This is a full-width container that spans the entire width of the viewport, adjusting dynamically to the screen size without any fixed maximum width.   Containers help in creating a consistent layout and alignment across different screen sizes, providing a structured way to manage and center content.   1. **Name the classes to achieve the different button styles in bootstrap.**   Bootstrap provides various button styles through its classes. Here are the common classes:   * .btn: The base class for all Bootstrap buttons. * .btn-primary: Applies the primary button styling (usually a blue background). * .btn-secondary: Applies the secondary button styling (usually a gray background). * .btn-success: Applies the success button styling (usually a green background). * .btn-danger: Applies the danger button styling (usually a red background). * .btn-warning: Applies the warning button styling (usually a yellow background). * .btn-info: Applies the info button styling (usually a light blue background). * .btn-light: Applies the light button styling (usually a light gray background). * .btn-dark: Applies the dark button styling (usually a dark gray background). * .btn-link: Styles the button as a link.  1. **Write details about the Bootstrap Grid system.**   Bootstrap’s grid system is based on a 12-column layout. It allows you to create responsive layouts by dividing the page into 12 columns. Here’s a breakdown:   * Grid Container: The .container or .container-fluid class provides a fixed-width or full-width container for the grid system. * Rows: Use the .row class to create horizontal groups of columns. * Columns: Use classes like .col, .col-sm, .col-md, .col-lg, and .col-xl to create responsive columns. The number indicates the screen size breakpoint (e.g., .col-md-4 means a column that spans 4 of the 12 available columns on medium screens).  1. **Explain the following bootstrap features**    1. **Bootstrap Containers**  * container: Fixed-width container that adjusts its size based on screen size with predefined breakpoints (e.g., 540px for small, 720px for medium, 960px for large, 1140px for extra-large). * container-fluid: Full-width container that spans the entire width of the viewport, allowing for a fluid layout.   1. **Responsive**   Bootstrap is designed to be responsive out-of-the-box. The framework includes:   * Responsive Breakpoints: Media queries are used to adjust the layout at various screen sizes (e.g., sm, md, lg, xl). This helps in creating designs that look good on mobile devices, tablets, and desktops. * Responsive Utilities: Classes that show or hide content based on the viewport size (e.g., .d-none, .d-sm-block). |

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| **Conclusion:** |
| To conclude, we learnt how to simplify the website creating process using bootstrap by implementing out own website. |

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| **Signature of faculty in-charge with Date:** |