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LAB REPORT 3

WEB TECHNOLOGIES

Introduction to Bootstrap and its Integration with HTML



Institute of Space and Technology

Submitted to: Miss Maryam

Objectives

By the end of this lab, students will be able to:

1. **Understand** what Bootstrap is and why it's used.
2. **Add** Bootstrap to an HTML project.
3. **Use** Bootstrap classes for layout, text, and components.
4. **Build** a simple responsive web page using Bootstrap.

What is Bootstrap?

Bootstrap is a **CSS framework** that provides ready-made classes for building **responsive**, **mobile-first**, and **visually appealing** web pages quickly.

Instead of writing CSS from scratch, you can use Bootstrap's predefined classes for layout, typography, buttons, forms, and navigation bars.

Task1

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Bootstrap Introduction - Ariba</title>
  <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
    rel="stylesheet">
  <style>
    body {
      background: linear-gradient(135deg, #BFC3BA, #A9ACA9);
      min-height: 100vh;
      display: flex;
      flex-direction: column;
    }
    .navbar {
      background-color: #2F2235;
    }
    .content-box {
      background-color: #FFF;
      border-radius: 15px;
    }
  </style>
</head>
<body>
  <nav class="navbar navbar-expand-lg navbar-dark bg-primary">
    <div class="container">
      <a href="#" class="navbar-brand">Ariba</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 href="#" class="nav-link">Home</a>
          </li>
          <li class="nav-item">
            <a href="#" class="nav-link">About</a>
          </li>
          <li class="nav-item">
            <a href="#" class="nav-link">Services</a>
          </li>
          <li class="nav-item">
            <a href="#" class="nav-link">Contact</a>
          </li>
        </ul>
      </div>
    </div>
  </nav>
  <div class="content-box">
    <h1>Welcome to Ariba!</h1>
    <p>We are a full-service digital marketing agency based in New York City. We specialize in website design, SEO optimization, social media management, and content marketing. Our team of experts has the skills and experience to help your business grow online. Contact us today to learn more about how we can help you succeed.</p>
  </div>
</body>
</html>
```

```
padding: 40px;
box-shadow: 0 4px 15px rgba(63, 50, 68, 0.3);
max-width: 800px;
margin: 80px auto;
}
h1 {
  color: #60495A;
  font-weight: 700;
  letter-spacing: 1px;
}
p {
  color: #3F3244;
  font-size: 1.1rem;
  line-height: 1.7;
}
.btn-custom {
  background-color: #60495A;
  border: none;
  color: #fff;
  transition: 0.3s;
}
.btn-custom:hover {
  background-color: #3F3244;
  transform: scale(1.05);
}
footer {
  margin-top: auto;
  text-align: center;
  padding: 15px;
  background-color: #2F2235;
  color: #bfc3ba; /* changed to soft off-white for visibility */
  font-size: 0.9rem;
  letter-spacing: 0.5px;
}
</style>
</head>
<body>
  <!-- Navbar -->
  <nav class="navbar navbar-dark">
    <div class="container-fluid">
      <a class="navbar-brand mx-auto fw-bold text-uppercase" href="#">Bootstrap
      Basics</a>
    </div>
  </nav>
```

```

<!-- Main Content -->
<div class="content-box text-center">
    <h1 class="mb-3">Welcome to Bootstrap 🎉</h1>
    <p>
        Bootstrap is a powerful CSS framework that helps you design responsive,
        mobile-first websites effortlessly.
    </p>
    It comes with ready-made classes for layout, typography, forms, buttons,
    and much more — saving your time and giving your site a modern look.
    </p>
    <a href="https://getbootstrap.com/" target="_blank" class="btn btn-custom mt-3">Explore Bootstrap</a>
</div>

<!-- Footer -->
<footer>
    <p>Designed by Ariba Shoaib | Lab 3 - Web Technologies</p>
</footer>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"
"></script>
</body>
</html>

```

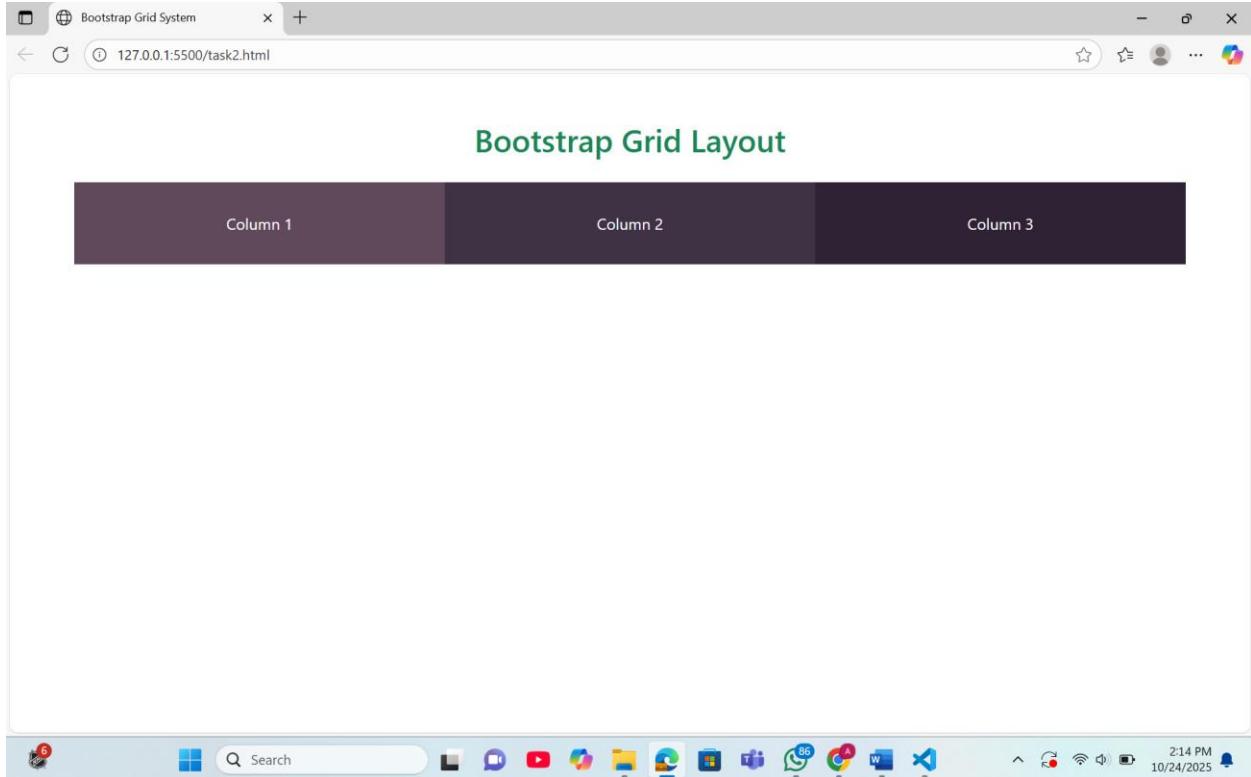
Output:

The screenshot shows a web page titled "BOOTSTRAP BASICS". The main content area has a dark background. It features a large heading "Welcome to Bootstrap" with a small colorful icon (a circle divided into four quadrants). Below the heading is a paragraph of text: "Bootstrap is a powerful CSS framework that helps you design responsive, mobile-first websites effortlessly. It comes with ready-made classes for layout, typography, forms, buttons, and much more — saving your time and giving your site a modern look." At the bottom of this section is a button labeled "Explore Bootstrap". At the very bottom of the page is a dark footer bar with the text "Designed by Ariba Shoaib | Lab 3 - Web Technologies".

Task2

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Bootstrap Grid System</title>
    <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
    rel="stylesheet">
    <style>
        .col-style { padding: 30px; color: white; text-align: center; }
        .bg1 { background-color: #60495A; }
        .bg2 { background-color: #3F3244; }
        .bg3 { background-color: #2F2235; }
    </style>
</head>
<body>
    <div class="container text-center mt-5">
        <h2 class="mb-4 text-success">Bootstrap Grid Layout</h2>
        <div class="row">
            <div class="col-md-4 bg1 col-style">Column 1</div>
            <div class="col-md-4 bg2 col-style">Column 2</div>
            <div class="col-md-4 bg3 col-style">Column 3</div>
        </div>
    </div>
    <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"
"></script>
</body>
</html>
```

Output:



Task3

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Task 3 - Bootstrap Components</title>
    <link
        href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
        rel="stylesheet">

    <style>
        body {
            background-color: #BFC3BA;
            font-family: 'Poppins', sans-serif;
        }

        /* Navbar */
        .navbar {
            background-color: #3F3244 !important;
            box-shadow: 0 4px 10px rgba(0,0,0,0.2);
        }
    </style>

```

```
}

.navbar-brand {
  font-weight: 600;
  letter-spacing: 1px;
}

/* Alert */
.alert {
  background-color: #60495A;
  color: #fff;
  border: none;
  font-size: 1.1rem;
  letter-spacing: 0.5px;
  border-radius: 12px;
}

/* Card Styling */
.card {
  background-color: #A9ACA9;
  color: #2F2235;
  border: none;
  border-radius: 18px;
  box-shadow: 0 5px 15px rgba(0,0,0,0.2);
  transition: transform 0.3s ease, box-shadow 0.3s ease;
}

.card:hover {
  transform: translateY(-8px);
  box-shadow: 0 8px 20px rgba(0,0,0,0.25);
}

.card-title {
  color: #3F3244;
  font-weight: 600;
  margin-bottom: 10px;
}

.card-text {
  color: #2F2235;
  font-size: 0.95rem;
}

.btn-custom {
  background-color: #60495A;
  color: white;
```

```
border: none;
border-radius: 8px;
padding: 8px 16px;
transition: background 0.3s ease;
}

.btn-custom:hover {
  background-color: #3F3244;
}

footer {
  background-color: #2F2235;
  color: white;
  text-align: center;
  padding: 15px;
  margin-top: 80px;
  font-size: 0.9rem;
  letter-spacing: 0.5px;
}
</style>
</head>
<body>
  <!-- Navbar -->
  <nav class="navbar navbar-expand-lg navbar-dark">
    <div class="container-fluid">
      <a class="navbar-brand text-white ms-3" href="#">✿ My Web</a>
    </div>
  </nav>

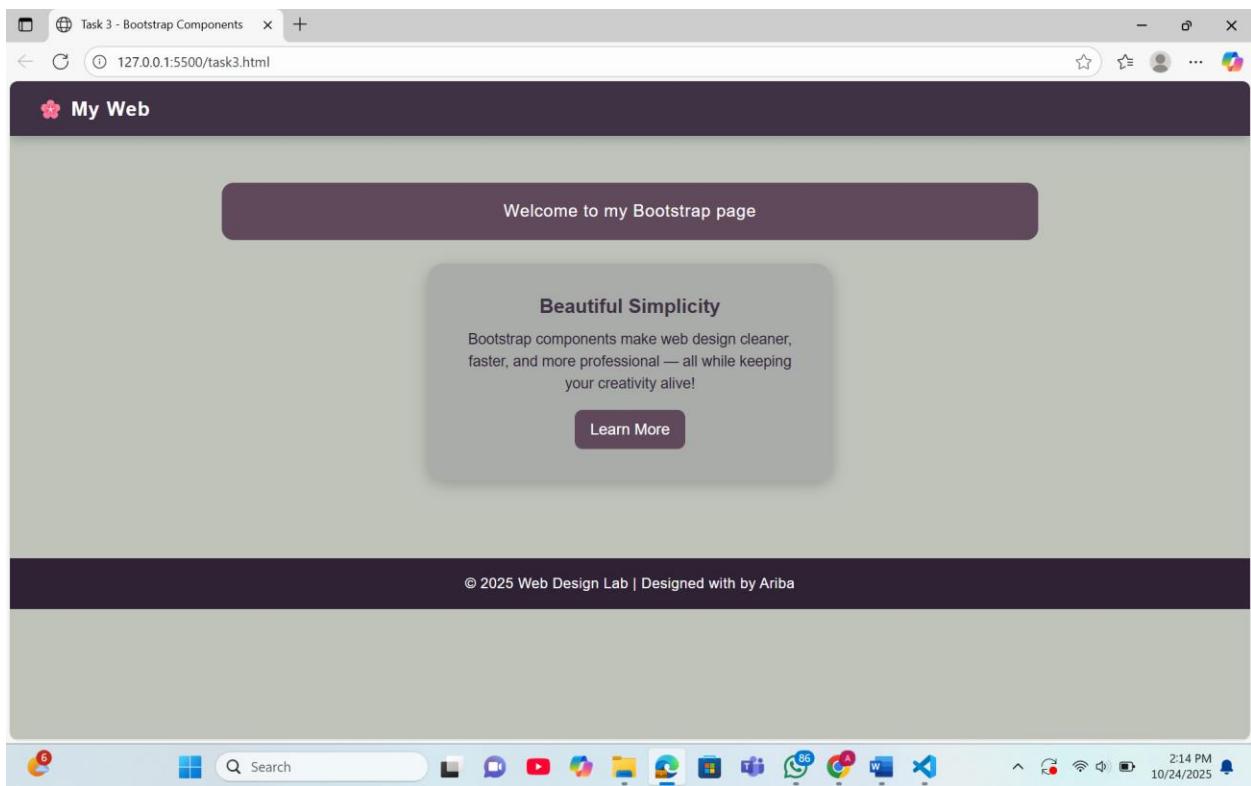
  <!-- Content -->
  <div class="container mt-5 text-center">
    <div class="alert mx-auto w-75" role="alert">
      Welcome to my Bootstrap page
    </div>

    <div class="card mx-auto mt-4 p-3" style="max-width: 26rem;">
      <div class="card-body">
        <h5 class="card-title">Beautiful Simplicity</h5>
        <p class="card-text">Bootstrap components make web design cleaner,  
faster, and more professional – all while keeping your creativity alive!</p>
        <a href="#" class="btn btn-custom">Learn More</a>
      </div>
    </div>
  </div>
</body>
```

```
<footer>© 2025 Web Design Lab | Designed with by Ariba</footer>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"
"></script>
</body>
</html>
```

Output:



Task4

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Task 4 - Bootstrap Contact Form</title>
  <link
  href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
  rel="stylesheet">
```

```
<style>
body {
  background-color: #BFC3BA;
  font-family: 'Poppins', sans-serif;
}

.form-section {
  min-height: 100vh;
  display: flex;
  align-items: center;
  justify-content: center;
  flex-direction: column;
}

h2 {
  color: #3F3244;
  font-weight: 700;
  margin-bottom: 25px;
  letter-spacing: 1px;
}

.form-container {
  background-color: #A9ACA9;
  padding: 40px;
  border-radius: 15px;
  color: #2F2235;
  box-shadow: 0 6px 20px rgba(0,0,0,0.2);
  width: 100%;
  max-width: 500px;
  transition: transform 0.3s ease, box-shadow 0.3s ease;
}

.form-container:hover {
  transform: translateY(-5px);
  box-shadow: 0 10px 25px rgba(0,0,0,0.25);
}

.form-label {
  font-weight: 500;
  color: #3F3244;
}

.form-control {
  border: none;
  border-radius: 8px;
```

```
        box-shadow: 0 0 0 1px #60495A;
        transition: all 0.3s ease;
    }

.form-control:focus {
    box-shadow: 0 0 5px #60495A;
}

.btn-custom {
    background-color: #60495A;
    border: none;
    color: #fff;
    width: 100%;
    padding: 10px;
    border-radius: 8px;
    font-weight: 500;
    transition: background-color 0.3s ease, transform 0.2s ease;
}

.btn-custom:hover {
    background-color: #3F3244;
    transform: scale(1.02);
}

footer {
    background-color: #2F2235;
    color: white;
    text-align: center;
    padding: 15px;
    font-size: 0.9rem;
    letter-spacing: 0.5px;
    margin-top: 50px;
    border-radius: 12px 12px 0 0;
    width: 100%;
}

</style>
</head>
<body>
    <div class="form-section">
        <h2>✉ Contact Us</h2>
        <div class="form-container">
            <form>
                <div class="mb-3">
                    <label class="form-label">Full Name</label>
```

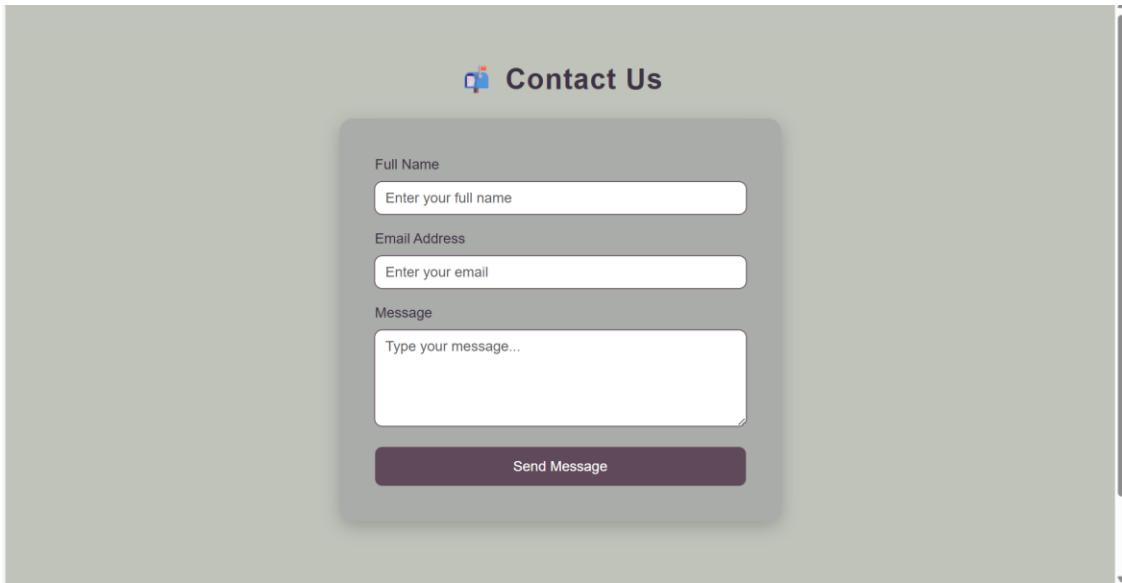
```

        <input type="text" class="form-control" placeholder="Enter your full
name">
    </div>
    <div class="mb-3">
        <label class="form-label">Email Address</label>
        <input type="email" class="form-control" placeholder="Enter your
email">
    </div>
    <div class="mb-3">
        <label class="form-label">Message</label>
        <textarea class="form-control" rows="4" placeholder="Type your
message..."></textarea>
    </div>
    <button type="submit" class="btn btn-custom mt-2">Send Message</button>
</form>
</div>
</div>

<footer>© 2025 Web Design Lab | Designed by Ariba <a href="#">
```

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"
></script>
</body>
<

Output:



Evaluation task

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>My Portfolio</title>
  <link
  href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css"
  rel="stylesheet">

<style>
  body {
    background-color: #BFC3BA;
    color: #2F2235;
    font-family: 'Poppins', sans-serif;
  }

  /* Navbar */
  .navbar {
    background-color: #60495A;
  }

  .navbar-brand, .nav-link {
    color: white !important;
    font-weight: 500;
  }

  /* Hero Section */
  .hero {
    background-color: #3F3244;
    color: #fff;
    padding: 70px 0;
  }

  .hero h1 {
    font-weight: 700;
    letter-spacing: 1px;
  }

  /* Cards */
  .card {
    background-color: #A9ACAA;
    border: none;
  }
```

```
border-radius: 12px;
box-shadow: 0 4px 15px rgba(0, 0, 0, 0.2);
transition: transform 0.3s ease, box-shadow 0.3s ease;
}

.card:hover {
  transform: translateY(-6px);
  box-shadow: 0 8px 20px rgba(0, 0, 0, 0.25);
}

.card-placeholder {
  height: 180px;
  background-color: #60495A;
  color: #fff;
  display: flex;
  align-items: center;
  justify-content: center;
  font-weight: 600;
  font-size: 1.1rem;
  border-radius: 12px 12px 0 0;
}

/* Footer */
footer {
  background-color: #2F2235;
  color: #BFC3BA;
  padding: 15px 0;
  text-align: center;
  margin-top: 60px;
  font-size: 0.9rem;
  letter-spacing: 0.5px;
}

.btn-custom {
  background-color: #3F3244;
  border: none;
  transition: all 0.3s ease;
}

.btn-custom:hover {
  background-color: #2F2235;
  transform: scale(1.05);
}

</style>
</head>
```

```
<body>
    <!-- Navbar -->
    <nav class="navbar navbar-expand-lg">
        <div class="container-fluid">
            <a class="navbar-brand" href="#">MyPortfolio</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="#">About</a></li>
                    <li class="nav-item"><a class="nav-link" href="#">Contact</a></li>
                </ul>
            </div>
        </div>
    </nav>

    <!-- Hero Section -->
    <section class="hero text-center">
        <div class="container">
            <h1 class="display-5">Hi, I'm <span style="color:#BFC3BA;">Ariba
Shoaib</span></h1>
            <p class="lead mt-3">A passionate web developer building modern,
responsive, and aesthetic designs.</p>
        </div>
    </section>

    <!-- Projects Section -->
    <div class="container mt-5">
        <h2 class="text-center text-success mb-4">My Projects</h2>
        <div class="row g-4">
            <!-- Project 1 -->
            <div class="col-md-4">
                <div class="card">
                    <div class="card-placeholder">Project Preview</div>
                    <div class="card-body">
                        <h5 class="card-title">Portfolio Website</h5>
                        <p class="card-text">A simple yet stylish personal website using
Bootstrap's grid system and cards.</p>
                        <a href="#" class="btn btn-custom text-white w-100">View</a>
                    </div>
                </div>
            </div>
        </div>
    </div>
```

```
</div>

<!-- Project 2 -->
<div class="col-md-4">
  <div class="card">
    <div class="card-placeholder" style="background-color:#3F3244;">Project
Demo</div>
    <div class="card-body">
      <h5 class="card-title">UI Components</h5>
      <p class="card-text">Designed interactive buttons, modals, and alerts
using Bootstrap utilities.</p>
      <a href="#" class="btn btn-custom text-white w-100">View</a>
    </div>
  </div>
</div>

<!-- Project 3 -->
<div class="col-md-4">
  <div class="card">
    <div class="card-placeholder" style="background-color:#2F2235;">Live
Preview</div>
    <div class="card-body">
      <h5 class="card-title">Responsive Layout</h5>
      <p class="card-text">Built a clean, multi-device layout using
Bootstrap's flexbox and grid tools.</p>
      <a href="#" class="btn btn-custom text-white w-100">View</a>
    </div>
  </div>
</div>
</div>
</div>

<!-- Footer -->
<footer>
  <p>&copy; 2025 Ariba Shoaib | All Rights Reserved</p>
</footer>

<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"
></script>
</body>
</html>
```

Output:

The screenshot shows a personal portfolio website with the following structure:

- Header:** A dark purple header bar with the text "MyPortfolio" on the left and "Home About Contact" on the right.
- Title Section:** A dark purple section containing the heading "Hi, I'm Ariba Shoib" and a subtitle "A passionate web developer building modern, responsive, and aesthetic designs."
- Section Header:** A light green section titled "My Projects" in blue text.
- Project Cards:** Three cards arranged horizontally:
 - Project Preview:** Description: "Portfolio Website" (A simple yet stylish personal website using Bootstrap's grid system and cards.) with a "View" button.
 - Project Demo:** Description: "UI Components" (Designed interactive buttons, modals, and alerts using Bootstrap utilities.) with a "View" button.
 - Live Preview:** Description: "Responsive Layout" (Built a clean, multi-device layout using Bootstrap's flexbox and grid tools.) with a "View" button.
- Footer:** A dark purple footer bar with the copyright notice "© 2025 Ariba Shoib | All Rights Reserved".