**Task 1: Bootstrap Grid System (5 marks)**

**Steps:**

1. Create a new HTML file named grid.html.
2. Include Bootstrap CSS by adding the following <link> in the <head> section:
3. <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
4. Add a <div> with the class .container.
5. Inside the container, create a <div> with the class .row.
6. Inside the row, create three <div> elements with classes .col-lg-4 .col-md-6 .col-12.
7. Add text inside each column to differentiate them.
8. Save and open the file in a browser.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Bootstrap Grid</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>

<div class="container">

<div class="row">

<div class="col-lg-4 col-md-6 col-12 bg-primary text-white p-3">Column 1</div>

<div class="col-lg-4 col-md-6 col-12 bg-secondary text-white p-3">Column 2</div>

<div class="col-lg-4 col-md-6 col-12 bg-success text-white p-3">Column 3</div>

</div>

</div>

</body>

</html>

**Output**

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**Task 2: Bootstrap Navigation Bar (5 marks)**

**Steps:**

1. Create a new file named navbar.html.
2. Include Bootstrap and create a navigation bar using .navbar and .navbar-expand-lg.
3. Add a brand logo and navigation links.
4. Save and open in a browser.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Bootstrap Navbar</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

<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" id="navbarNav">

<ul class="navbar-nav">

<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>

</body>

</html>

**Output**

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**Task 3: Bootstrap Table (5 marks)**

**Steps:**

1. Create table.html.
2. Add a Bootstrap-styled table inside a container.
3. Include classes .table, .table-striped, .table-hover, and .table-bordered.
4. Save and open in a browser.

<table class="table table-striped">

<thead>

<tr>

<th>ID</th>

<th>Name</th>

<th>Course</th>

</tr>

</thead>

<tbody>

<tr>

<td>1</td>

<td>John Doe</td>

<td>Web Design</td>

</tr>

</tbody>

</table>

**Output**

|  |
| --- |
| Table Striped  Table Hover  Table Bordered |

### ****Task 4: Bootstrap Alerts, Badges, and Buttons (5 marks)****

**Steps:**

1. Create a new file named alerts\_buttons.html.
2. Include Bootstrap by adding the following <link> in the <head> section:
3. <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">
4. Inside the <body>, create a <div class="container"> to hold various Bootstrap components.
5. Implement the following Bootstrap elements:
   * **Alerts**: Create different types of alerts using .alert and .alert-{color} classes.
   * **Dismissible Alerts**: Add alerts with a close button using .alert-dismissible and .btn-close.
   * **Badges**: Display badges inside headings and buttons using .badge.
   * **Styled Buttons**: Create different buttons using .btn, .btn-{color} classes.
   * **Button Groups**: Group multiple buttons using .btn-group.
6. Save and open in a browser.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Bootstrap Alerts and Buttons</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>

<div class="container mt-4">

<h2>Bootstrap Alerts</h2>

<div class="alert alert-primary" role="alert">This is a primary alert!</div>

<div class="alert alert-success" role="alert">Success! Your action was completed.</div>

<div class="alert alert-danger" role="alert">Error! Something went wrong.</div>

<h3>Dismissible Alert</h3>

<div class="alert alert-warning alert-dismissible fade show" role="alert">

Warning! Check your input.

<button type="button" class="btn-close" data-bs-dismiss="alert"></button>

</div>

<h2>Bootstrap Badges</h2>

<h4>Notification <span class="badge bg-danger">5</span></h4>

<button class="btn btn-primary">

Messages <span class="badge bg-light text-dark">3</span>

</button>

<h2>Bootstrap Buttons</h2>

<button class="btn btn-primary">Primary Button</button>

<button class="btn btn-success">Success Button</button>

<button class="btn btn-danger">Danger Button</button>

<button class="btn btn-warning">Warning Button</button>

<h3>Button Group</h3>

<div class="btn-group">

<button class="btn btn-outline-primary">Left</button>

<button class="btn btn-outline-primary">Middle</button>

<button class="btn btn-outline-primary">Right</button>

</div>

</div>

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

</body>

</html>

**Output**

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**Task 5: Bootstrap Complete Page (10 marks)**

**Steps:**

1. Create complete.html and include Bootstrap.
2. Implement a navigation bar using .navbar.
3. Add a hero section with .jumbotron.
4. Use .row and .col for a responsive grid layout.
5. Include a Bootstrap table inside a card.
6. Add a styled form for user input.
7. Save and test in a browser.

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Complete Bootstrap Page</title>

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

<div class="container">

<a class="navbar-brand" href="#">MySite</a>

</div>

</nav>

<div class="container mt-4">

<div class="jumbotron bg-light p-4">

<h1 class="display-4">Welcome to My Bootstrap Page</h1>

<p class="lead">This is a simple demonstration of Bootstrap components.</p>

</div>

<div class="row">

<div class="col-md-6">

<div class="card">

<img src="student.jpg" class="card-img-top" alt="Student Image">

<div class="card-body">

<h5 class="card-title">Student Name</h5>

<p class="card-text">This is an example Bootstrap card.</p>

<a href="#" class="btn btn-primary">Read More</a>

</div>

</div>

</div>

<div class="col-md-6">

<table class="table table-striped table-bordered table-hover">

<thead>

<tr>

<th>ID</th>

<th>Name</th>

<th>Course</th>

</tr>

</thead>

<tbody>

<tr>

<td>1</td>

<td>John Doe</td>

<td>Web Design</td>

</tr>

<tr>

<td>2</td>

<td>Jane Smith</td>

<td>Mobile App Development</td>

</tr>

</tbody>

</table>

</div>

</div>

<form class="mt-4">

<div class="mb-3">

<label for="name" class="form-label">Name</label>

<input type="text" class="form-control" id="name" placeholder="Enter your name">

</div>

<div class="mb-3">

<label for="email" class="form-label">Email</label>

<input type="email" class="form-control" id="email" placeholder="Enter your email">

</div>

<button type="submit" class="btn btn-success">Submit</button>

</form>

</div>

</body>

</html>

**Output**

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**Exercise Questions (10 Marks)**

1. Explain the purpose of the Bootstrap grid system and how it helps in responsive design.
2. What is the difference between .container and .container-fluid in Bootstrap?
3. List and explain three Bootstrap table classes and their effects.
4. Modify the navigation bar in complete.html to include a dropdown menu.
5. Change the button style in complete.html to a secondary button instead of a primary button.
6. How can you make a form input field required in Bootstrap?
7. Add a modal pop-up to complete.html using Bootstrap components.
8. What class is used to style Bootstrap typography and headings effectively?
9. How do you align items inside a Bootstrap flexbox container?
10. Modify the Bootstrap card component to display an image at the bottom instead of at the top.

**Exercise Answer: -**

|  |
| --- |
| 1. **Make layout more flexible based on creativity. Help designer doing responsive design with different screen size by using classes like “.col-lg-4”.** 2. **Container provides fixed width container that adjust based on the viewport size. While container fuild spans the entire width of the screen (full screen).** 3. **Table-bordered. Add border around the table**   **Table-hover. Highlight rows when hovered over to improve user experience.**  **Table-stripted. Add zebra-striping to the table rows for better readability.**   1. **Add the following dropdown menu inside the <ul class="navbar-nav">** 2. **Change btn-primary to btn-secondary** 3. **Add the required attribute inside the <input> tag**      1. **Use classes like “display-1”, “display-2”, “lead”, and “fw-bold” for typography and heading styling.** 2. **Use “d-flex along” with alignment classes like “justify-content-center” and “align-items-center”** 3. **Move the <img> tag below the .card-body** |

**Submission Guidelines:**

* Submit all tasks in separate HTML files.
* Ensure proper indentation and comments in the code.
* Upload the final HTML files to the learning portal.

**End of Worksheet**