

Exercise 1: Create a Basic Bootstrap 4 Page

****Task:****

Create a basic HTML page with Bootstrap 4 included. The page should have a navbar, a container with a header, and a paragraph.

****Solution:****

```
``html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Bootstrap 4 Basic Page</title>
  <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
</head>
<body>
  <nav class="navbar navbar-expand-lg navbar-light bg-light">
    <a class="navbar-brand" href="#">Navbar</a>
  </nav>
  <div class="container mt-4">
    <h1 class="display-4">Hello, Bootstrap!</h1>
```

```
<p class="lead">This is a simple example to get you started with
Bootstrap 4.</p>
```

```
</div>
```

```
</body>
```

```
</html>
```

```
...
```

Exercise 2: Implement the Bootstrap 4 Grid System

****Task:****

Create a responsive layout with a 3-column grid that changes to 1 column on small devices.

****Solution:****

```
```html
```

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
 <meta charset="UTF-8">
```

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

```
 <title>Bootstrap 4 Grid System</title>
```

```
 <link
```

```
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
```

```
</head>
```

```
<body>
 <div class="container mt-4">
 <div class="row">
 <div class="col-md-4 col-12">
 <div class="p-3 border bg-light">Column 1</div>
 </div>
 <div class="col-md-4 col-12">
 <div class="p-3 border bg-light">Column 2</div>
 </div>
 <div class="col-md-4 col-12">
 <div class="p-3 border bg-light">Column 3</div>
 </div>
 </div>
 </div>
</body>
</html>
...
```

### ### Exercise 3: Create a Styled Table

**\*\*Task:\*\***

Create a table with Bootstrap 4 classes to add striped rows and make it responsive.

**\*\*Solution:\*\***

```
``html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-
scale=1.0">
 <title>Bootstrap 4 Table</title>
 <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
</head>
<body>
 <div class="container mt-4">
 <div class="table-responsive">
 <table class="table table-striped">
 <thead>
 <tr>
 <th>#</th>
 <th>First Name</th>
 <th>Last Name</th>
 <th>Username</th>
 </tr>
 </thead>
 <tbody>
```

```
<tr>
 <td>1</td>
 <td>John</td>
 <td>Doe</td>
 <td>@johndoe</td>
</tr>
<tr>
 <td>2</td>
 <td>Jane</td>
 <td>Doe</td>
 <td>@janedoe</td>
</tr>
</tbody>
</table>
</div>
</div>
</body>
</html>
...
```

### ### Exercise 4: Create a Form with Validation

#### **\*\*Task:\*\***

Create a form with Bootstrap 4 that includes validation for required fields.

**\*\*Solution:\*\***

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
 <meta charset="UTF-8">
```

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

```
 <title>Bootstrap 4 Form Validation</title>
```

```
 <link
```

```
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
 <div class="container mt-4">
```

```
 <form class="needs-validation" novalidate>
```

```
 <div class="form-group">
```

```
 <label for="inputName">Name</label>
```

```
 <input type="text" class="form-control" id="inputName"
required>
```

```
 <div class="invalid-feedback">
```

```
 Please provide a name.
```

```
 </div>
```

```
 </div>
```

```
 <div class="form-group">
```

```
 <label for="inputEmail">Email</label>
```

```

 <input type="email" class="form-control" id="inputEmail"
required>
 <div class="invalid-feedback">
 Please provide a valid email.
 </div>
</div>
 <button type="submit" class="btn btn-
primary">Submit</button>
</form>
</div>
<script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.3/dist/u
md/popper.min.js"></script>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bo
otstrap.min.js"></script>
<script>
 // Example starter JavaScript for disabling form submissions if
there are invalid fields
 (function() {
 'use strict';
 window.addEventListener('load', function() {
 var forms = document.getElementsByClassName('needs-
validation');

```

```

 var validation = Array.prototype.filter.call(forms,
function(form) {
 form.addEventListener('submit', function(event) {
 if (form.checkValidity() === false) {
 event.preventDefault();
 event.stopPropagation();
 }
 form.classList.add('was-validated');
 }, false);
 });
 }, false);
 })0;
</script>
</body>
</html>

```

### ### Exercise 5: Create a Card Component

**\*\*Task:\*\***

Create a Bootstrap 4 card component with a header, body, and footer.

**\*\*Solution:\*\***

```

```html
<!DOCTYPE html>
<html lang="en">

```



```
<head>

  <meta charset="UTF-8">

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

  <title>Bootstrap 4 Card</title>

  <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">

</head>

<body>

  <div class="container mt-4">
    <div class="card">
      <div class="card-header">
        Card Header
      </div>
      <div class="card-body">
        <h5 class="card-title">Card Title</h5>
        <p class="card-text">This is an example of a card component
using Bootstrap 4.</p>
        <a href="#" class="btn btn-primary">Go somewhere</a>
      </div>
      <div class="card-footer">
        Card Footer
      </div>
    </div>
  </div>

</div>
```

```
</body>
</html>
...
```

Exercise 6: Create a Navbar with Dropdown

****Task:****

Create a Bootstrap 4 navbar with a dropdown menu.

****Solution:****

```
``html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Bootstrap 4 Navbar with Dropdown</title>
  <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
</head>
<body>
  <nav class="navbar navbar-expand-lg navbar-light bg-light">
    <a class="navbar-brand" href="#">Navbar</a>
```

```
<button class="navbar-toggler" type="button" data-
toggle="collapse" data-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">
```

```
<li class="nav-item active">
```

```
<a class="nav-link" href="#">Home <span class="sr-
only">(current)</span></a>
```

```
</li>
```

```
<li class="nav-item">
```

```
<a class="nav-link" href="#">Features</a>
```

```
</li>
```

```
<li class="nav-item dropdown">
```

```
<a class="nav-link dropdown-toggle" href="#"
id="navbarDropdown" role="button" data-toggle="dropdown"
aria-haspopup="true" aria-expanded="false">
```

```
Dropdown
```

```
</a>
```

```
<div class="dropdown-menu" aria-
labelledby="navbarDropdown">
```

```
<a class="dropdown-item" href="#">Action</a>
```

```
<a class="dropdown-item" href="#">Another action</a>
```

```
<div class="dropdown-divider"></div>
```

```

        <a class="dropdown-item" href="#">Something else
here</a>
    </div>
</li>
<li class="nav-item">
    <a class="nav-link" href="#">Pricing</a>
</li>
</ul>
</div>
</nav>

<script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>

<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.3/dist/u
md/popper.min.js"></script>

<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bo
otstrap.min.js"></script>
</body>
</html>
'''

```

Exercise 7: Create a Modal

****Task:****

Create a Bootstrap

4 modal that can be triggered by a button.

****Solution:****

```
```html
```

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
 <meta charset="UTF-8">
```

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

```
 <title>Bootstrap 4 Modal</title>
```

```
 <link
```

```
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
 <div class="container mt-4">
```

```
 <button type="button" class="btn btn-primary" data-
toggle="modal" data-target="#exampleModal">
```

```
 Launch demo modal
```

```
 </button>
```

```
 <div class="modal fade" id="exampleModal" tabindex="-1"
role="dialog" aria-labelledby="exampleModalLabel" aria-
hidden="true">
```

```
 <div class="modal-dialog" role="document">
```

```
<div class="modal-content">
 <div class="modal-header">
 <h5 class="modal-title" id="exampleModalLabel">Modal
title</h5>
 <button type="button" class="close" data-dismiss="modal"
aria-label="Close">
 ×
 </button>
 </div>
 <div class="modal-body">
 This is a modal example.
 </div>
 <div class="modal-footer">
 <button type="button" class="btn btn-secondary" data-
dismiss="modal">Close</button>
 <button type="button" class="btn btn-primary">Save
changes</button>
 </div>
</div>
</div>
</div>
</div>
<script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.3/dist/u
md/popper.min.js"></script>
```

```
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</body>
</html>
...
```

### ### Exercise 8: Create a Progress Bar

#### **\*\*Task:\*\***

Create a Bootstrap 4 progress bar that is 70% complete.

#### **\*\*Solution:\*\***

```
``html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Bootstrap 4 Progress Bar</title>
 <link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
```

```
<div class="container mt-4">
 <div class="progress">
 <div class="progress-bar" role="progressbar" style="width:
70%;" aria-valuenow="70" aria-valuemin="0" aria-
valuemax="100">70%</div>
 </div>
</div>
</body>
</html>
...

```

### ### Exercise 9: Create a Badge

#### **\*\*Task:\*\***

Create a Bootstrap 4 badge that displays a notification count inside a button.

#### **\*\*Solution:\*\***

```
``html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-
scale=1.0">
 <title>Bootstrap 4 Badge</title>

```



```
<link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">
</head>
<body>
 <div class="container mt-4">
 <button type="button" class="btn btn-primary">
 Notifications 4
 </button>
 </div>
</body>
</html>
...
```

### ### Exercise 10: Create a Tooltip

**\*\*Task:\*\***

Create a Bootstrap 4 button with a tooltip that says "Click me!".

**\*\*Solution:\*\***

```
```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
```

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

<title>Bootstrap 4 Tooltip</title>

<link
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/
bootstrap.min.css" rel="stylesheet">

</head>

<body>

  <div class="container mt-4">

    <button type="button" class="btn btn-secondary" data-
toggle="tooltip" data-placement="top" title="Click me!">

      Hover to see tooltip

    </button>

  </div>

  <script src="https://code.jquery.com/jquery-
3.5.1.slim.min.js"></script>

  <script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.5.3/dist/u
md/popper.min.js"></script>

  <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bo
otstrap.min.js"></script>

  <script>

    $(function () {

      $('[data-toggle="tooltip"]').tooltip()

    })

  </script>
```

</body>

</html>