

# HTML, CSS and JAVASCRIPT

Assignment 1: Implement a navigation bar using an unordered list with links to different sections of your HTML page. Use CSS to style the list as a horizontal menu and highlight the current page or section.

## HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Navigation Bar Example</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <nav>
    <ul class="navbar">
      <li><a href="#home">Home</a></li>
      <li><a href="#about">About</a></li>
      <li><a href="#services">Services</a></li>
      <li><a href="#contact">Contact</a></li>
    </ul>
  </nav>

  <div id="home">Home Section</div>
  <div id="about">About Section</div>
```

```
<div id="services">Services Section</div>
<div id="contact">Contact Section</div>
</body>
</html>
```

CSS (styles.css):

```
body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
}
```

```
nav {
    background-color: #333;
}
```

```
.navbar {
    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
}
```

```
.navbar li {
    float: left;
}
```

```
.navbar li a {
```

```
display: block;
color: white;
text-align: center;
padding: 14px 16px;
text-decoration: none;
}

.navbar li a:hover, .navbar li a.active {
background-color: #111;
}
```

Assignment 2: Create a simple HTML page that includes the use of headings, paragraphs, and at least two semantic tags like <article> or <section>. Add a table with data of your choice and a form with fields for a user's name, email, and a submit button.

### HTML:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Simple HTML Page</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <header>
```

```
<h1>Welcome to My Simple Page</h1>
</header>
```

```
<section>
  <h2>Introduction</h2>
  <p>This is an example paragraph providing some introduction.</p>
</section>
```

```
<article>
  <h2>Sample Article</h2>
  <p>This is a sample article with some text.</p>
</article>
```

```
<section>
  <h2>Data Table</h2>
  <table>
    <tr>
      <th>Name</th>
      <th>Age</th>
      <th>City</th>
    </tr>
    <tr>
      <td>John Doe</td>
      <td>30</td>
      <td>New York</td>
    </tr>
```

```
<tr>
  <td>Jane Smith</td>
  <td>25</td>
  <td>Los Angeles</td>
</tr>
</table>
</section>
```

```
<section>
  <h2>Contact Form</h2>
  <form>
    <label for="name">Name:</label>
    <input type="text" id="name" name="name"><br><br>
    <label for="email">Email:</label>
    <input type="email" id="email" name="email"><br><br>
    <input type="submit" value="Submit">
  </form>
</section>
</body>
</html>
```

CSS (styles.css):

```
table {
  width: 100%;
  border-collapse: collapse;
}
```

```
table, th, td {  
    border: 1px solid black;  
    padding: 8px;  
}
```

```
th {  
    background-color: #f2f2f2;  
}
```

```
form {  
    margin-top: 20px;  
}
```

```
label {  
    display: inline-block;  
    width: 100px;  
}
```

```
input[type="text"], input[type="email"] {  
    width: 200px;  
}
```

Assignment 3: Apply the CSS box model to ensure that your page content has appropriate margins and padding. Create a layout using div tags and style them to arrange content in a multi-column format using floats or flexbox.

## HTML:

```
<!DOCTYPE html>

<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Simple HTML Page</title>
  <link rel="stylesheet" href="styles.css">
</head>

<body>
  <header>
    <h1>Welcome to My Simple Page</h1>
  </header>

  <section>
    <h2>Introduction</h2>
    <p>This is an example paragraph providing some introduction.</p>
  </section>

  <article>
    <h2>Sample Article</h2>
    <p>This is a sample article with some text.</p>
  </article>

  <section>
    <h2>Data Table</h2>
    <table>
      <tr>
```

```
<th>Name</th>
<th>Age</th>
<th>City</th>
</tr>
<tr>
<td>John Doe</td>
<td>30</td>
<td>New York</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>25</td>
<td>Los Angeles</td>
</tr>
</table>
</section>
```

```
<section>
<h2>Contact Form</h2>
<form>
<label for="name">Name:</label>
<input type="text" id="name" name="name"><br><br>
<label for="email">Email:</label>
<input type="email" id="email" name="email"><br><br>
<input type="submit" value="Submit">
</form>
```

```
<div class="container">
<div id="home">Home Section</div>
<div id="about">About Section</div>
```



```
</div>
  </section>
</body>
</html>
```

CSS (styles.css):

```
body {
  margin: 20px;
  padding: 10px;
}

header, section, article {
  padding: 10px;
  margin-bottom: 20px;
  border: 1px solid #ddd;
  border-radius: 4px;
}

.container {
  display: flex;
  flex-wrap: wrap;
}

.container > div {
  flex: 1;
  min-width: 200px;
  margin: 10px;
  padding: 20px;
  border: 1px solid #ccc;
  box-sizing: border-box;
}
```

Assignment 4: Enhance the page by adding CSS3 animations to the menu and form elements. Also, use media queries to make the page responsive, ensuring it looks good on both desktop and mobile screen sizes.

CSS (styles.css):

```
/* Existing styles */
```

```
.navbar li a {  
    display: block;  
    color: white;  
    text-align: center;  
    padding: 14px 16px;  
    text-decoration: none;  
    transition: background-color 0.3s ease;  
}
```

```
.navbar li a:hover, .navbar li a.active {  
    background-color: #111;  
}
```

```
form input[type="text"], form input[type="email"], form input[type="submit"] {  
    transition: all 0.3s ease;  
}
```

```
form input[type="text"]:focus, form input[type="email"]:focus {  
    border-color: #333;  
    background-color: #f9f9f9;
```

```
}
```

```
@media (max-width: 600px) {
```

```
  .navbar li {  
    float: none;  
  }
```

```
  .navbar li a {  
    text-align: left;  
  }
```

```
  form label {  
    display: block;  
  }
```

```
}
```

Assignment 5: Take the static HTML page from Day 1 and integrate Bootstrap. Refactor the navigation bar, table, and form to use Bootstrap components. Ensure the page is responsive using Bootstrap's grid system.

HTML:

```
<!DOCTYPE html>
```

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

```
<head>
```

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

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

```
  <title>Bootstrap Page</title>
```

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

```
  <link rel="stylesheet" href="styles.css">
```

</head>

<body>

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

<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"><a class="nav-link" href="#home">Home</a></li>

<li class="nav-item"><a class="nav-link" href="#about">About</a></li>

<li class="nav-item"><a class="nav-link" href="#services">Services</a></li>

<li class="nav-item"><a class="nav-link" href="#contact">Contact</a></li>

</ul>

</div>

</nav>

<div class="container mt-4">

<header class="mb-4">

<h1>Welcome to My Bootstrap Page</h1>

</header>

<section>

<h2>Introduction</h2>

<p>This is an example paragraph providing some introduction.</p>

</section>

<article>

```
<h2>Sample Article</h2>

<p>This is a sample article with some text.</p>

</article>
```

```
<section>

<h2>Data Table</h2>

<table class="table table-bordered">

  <thead>

    <tr>

      <th>Name</th>

      <th>Age</th>

      <th>City</th>

    </tr>

  </thead>

  <tbody>

    <tr>

      <td>John Doe</td>

      <td>30</td>

      <td>New York</td>

    </tr>

    <tr>

      <td>Jane Smith</td>

      <td>25</td>

      <td>Los Angeles</td>

    </tr>

  </tbody>

</table>

</section>
```

```
<section>
  <h2>Contact Form</h2>
  <form>
    <div class="form-group">
      <label for="name">Name:</label>
      <input type="text" class="form-control" id="name" name="name">
    </div>
    <div class="form-group">
      <label for="email">Email:</label>
      <input type="email" class="form-control" id="email" name="email">
    </div>
    <button type="submit" class="btn btn-primary">Submit</button>
  </form>
</section>
</div>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
<script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</body>
</html>
```