

## EXPERIMENT:1

1. Build a responsive web application for shopping cart with registration, login, catalog and cart pages using CSS3 features, flex and grid.

### Project Structure

HTML Files: Different pages for registration, login, catalog, and cart.

CSS Stylesheets: Main CSS file for styling.

JavaScript Files: For adding interactivity like cart management and user login/registration logic.

Backend Services: To manage user data and product catalog (you can use a simple Node.js/Express backend, but let's focus on the front-end in this guide).

#### Step 1: Set Up the HTML Structure

Start by creating the following HTML files:

index.html: The landing page and product catalog.

login.html: The user login page.

register.html: The user registration page.

cart.html: The shopping cart page.

#### Step 2: Create CSS Stylesheets

Create a styles.css file to hold the CSS rules for your application. Use Flexbox and Grid to ensure responsive layouts.

#### Step 3: Add HTML Content

Here's a simple outline for each of the pages with some key CSS styling features.

#### Catalog Page (index.html)

```
<!DOCTYPE html>
```

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

```
<head>
```

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

```
  <title>Product Catalog</title>
```

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

</head>

<body>

  <header>

    <h1>Welcome to Our Shop</h1>

    <nav>

      <a href="index.html">Catalog</a>

      <a href="cart.html">Cart</a>

      <a href="login.html">Login</a>

    </nav>

  </header>

  <main>

    <div class="product-grid">

      <div class="product">

        

        <h3>Product Name</h3>

        <p>$19.99</p>

        <button>Add to Cart</button>

      </div>

      <!-- Add more product divs as needed -->

    </div>

  </main>

  <footer>
```

```
<p>&copy; 2024 Our Shop. All rights reserved.</p>
</footer>
</body>
</html>
```

### Login Page (login.html)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Login</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <header>
    <h1>Login</h1>
    <nav>
      <a href="index.html">Catalog</a>
      <a href="cart.html">Cart</a>
    </nav>
  </header>
  <main>
    <form id="login-form">
      <label for="username">Username:</label>
      <input type="text" id="username" name="username">
```

```
        <label for="password">Password:</label>

        <input type="password" id="password" name="password">

        <button type="submit">Login</button>

    </form>

</main>

<footer>

    <p>&copy; 2024 Our Shop. All rights reserved.</p>

</footer>

</body>

</html>
```

#### Registration Page (register.html)

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <title>Register</title>

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

</head>

<body>

    <header>

        <h1>Register</h1>

        <nav>
```

```

        <a href="index.html">Catalog</a>

        <a href="cart.html">Cart</a>

    </nav>

</header>

<main>

    <form id="register-form">

        <label for="username">Username:</label>

        <input type="text" id="username" name="username">


        <label for="password">Password:</label>

        <input type="password" id="password" name="password">


        <button type="submit">Register</button>

    </form>

</main>

<footer>

    <p>&copy; 2024 Our Shop. All rights reserved.</p>

</footer>

</body>

</html>

Cart Page (cart.html)

<!DOCTYPE html>

<html lang="en">

```

```
<head>

  <meta charset="UTF-8">

  <title>Shopping Cart</title>

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

</head>

<body>

  <header>

    <h1>Shopping Cart</h1>

    <nav>

      <a href="index.html">Catalog</a>

      <a href="login.html">Login</a>

    </nav>

  </header>

  <main>

    <div class="cart-items">

      <div class="cart-item">

        <h3>Product Name</h3>

        <p>Quantity: 1</p>

        <p>Price: $19.99</p>

      </div>

      <!-- Add more cart items as needed -->

    </div>

    <div class="cart-summary">
```

```
<h3>Total: $19.99</h3>

<button>Checkout</button>

</div>

</main>


<footer>

  <p>&copy; 2024 Our Shop. All rights reserved.</p>

</footer>

</body>

</html>
```

#### Step 4: Style with CSS

Here's an example of the CSS styling with Flexbox and Grid for a responsive layout (styles.css):

```
/* Basic Styles */

body {

  font-family: Arial, sans-serif;

  margin: 0;

  padding: 0;

}


header {

  background-color: #333;

  color: white;

  text-align: center;

  padding: 1em;
```

```
}
```

```
nav {  
    display: flex;  
    justify-content: center;  
}
```

```
nav a {  
    color: white;  
    margin: 0 10px;  
    text-decoration: none;  
}
```

```
main {  
    padding: 20px;  
}
```

```
/* Product Grid */
```

```
.product-grid {  
    display: grid;  
    grid-template-columns: repeat(auto-fill, minmax(200px, 1fr));  
    gap: 20px;  
}
```

```
.product {
```



```
border: 1px solid #ddd;
padding: 10px;
text-align: center;
}
```

```
.product img {
    max-width: 100%;
}
```

```
.product button {
    background-color: #333;
    color: white;
    border: none;
    padding: 10px;
    cursor: pointer;
}
```

```
.product button:hover {
    background-color: #555;
}
```

```
/* Cart */
```

```
.cart-items {
    display: flex;
    flex-direction: column;
```

```
}
```

```
.cart-item {  
    border-bottom: 1px solid #ddd;  
    padding: 10px;  
}
```

```
.cart-summary {  
    text-align: right;  
    padding: 10px;  
}
```

```
.cart-summary button {  
    background-color: #333;  
    color: white;  
    border: none;  
    padding: 10px;  
    cursor: pointer;  
}
```

```
.cart-summary button:hover {  
    background-color: #555;  
}
```

```
/* Forms */
```

```
form {  
    max-width: 400px;  
    margin: 0 auto;  
}
```

```
label {  
    display: block;  
    margin-bottom: 10px;  
}
```

```
input {  
    width: 100%;  
    padding: 10px;  
    border: 1px solid #ddd;  
    margin-bottom: 20px;  
}
```

```
button {  
    display: block;  
    width: 100%;  
    background-color: #333;  
    color: white;  
    padding: 10px;  
    border: none;  
    cursor: pointer;
```

```
}
```

```
button:hover {  
  background-color: #555;  
}
```

```
footer {  
  text-align: center;  
  background-color: #333;  
  color: white;  
  padding: 10px;  
}
```

### Step 5: Add JavaScript Logic

For simplicity, here's an example of JavaScript logic for adding items to the cart and handling login/registration (app.js):

```
document.addEventListener("DOMContentLoaded", () => {  
  // Add event listeners for adding to cart  
  const addCartButtons = document.querySelectorAll(".product button");  
  addCartButtons.forEach((button) => {  
    button.addEventListener("click", () => {  
      // Logic to add to cart  
      console.log("Item added to cart");  
    });  
  });  
});
```

```
    });  
  });  
  
  // Event listener for login form  
  const loginForm = document.getElementById("login-form");  
  if (loginForm) {  
    loginForm.addEventListener("submit", (e) => {  
      e.preventDefault();  
      // Login logic  
      console.log("User logged in");  
    });  
  }  
  
  // Event listener for registration form  
  const registerForm = document.getElementById("register-form");  
  if (registerForm) {  
    registerForm.addEventListener("submit", (e) => {  
      e.preventDefault();  
      // Registration logic  
      console.log("User registered");  
    });  
  }  
});
```