

Experiment 1

Aim: Build responsive and interactive UIs using Tailwind CSS

Theory: Tailwind CSS is a **utility-first CSS framework** that provides low-level utility classes (like flex, grid, text-center, p-4, bg-blue-500) to build modern, responsive, and interactive web interfaces without writing custom CSS. Unlike traditional CSS frameworks (e.g., Bootstrap), Tailwind does not provide pre-styled components; instead, it gives developers the flexibility to create custom designs directly in the markup.

Key Features of Tailwind CSS:

1. **Utility-First Approach** – Provides atomic classes for margin, padding, typography, colors, etc.
2. **Responsive Design** – Built-in breakpoints (sm, md, lg, xl, 2xl) allow designing for multiple screen sizes.
3. **Customization** – Fully configurable via tailwind.config.js (themes, colors, spacing, etc.).
4. **Interactive States** – Supports pseudo-classes like hover:, focus:, active:, dark: for dynamic UI behavior.
5. **Performance Optimization** – Removes unused CSS in production builds (tree-shaking with PurgeCSS).

Responsive & Interactive UI Building with Tailwind CSS:

- Developers use Tailwind's **flexbox and grid utilities** to build responsive layouts.
- **Media query classes** (sm:, md:, lg:) adapt elements to different devices.
- **Hover and transition utilities** (hover:bg-blue-600, transition, duration-300) enhance interactivity.
- **Dark mode and theming** allow better user experience.

Extra: An extra feature was added to the contact form to provide a smooth user experience. After the form is submitted, a JavaScript function handles the data and then automatically redirects the user to a separate thankyou.html page. This gives clear feedback that the message has been sent successfully, instead of leaving the user on the same page without confirmation.

Code:

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<!-- index.html M X
<!-- index.html > html > body.font-sans.bg-gray-50.text-gray-800 > section#menu.py-20.px-6.md:px-20.bg-gray-50
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Café UI</title>
7      <!-- Tailwind CSS CDN -->
8      <script src="https://cdn.tailwindcss.com"></script>
9  </head>
10 <body class="font-sans bg-gray-50 text-gray-800">
11
12     <!-- Navbar -->
13     <nav class="flex items-center justify-between p-4 bg-white shadow fixed w-full top-0 z-50">
14         <div class="text-2xl font-bold text-brown-700">Café Delight</div>
15         <ul class="hidden md:flex space-x-6">
16             <li><a href="#home" class="hover:text-brown-600">Home</a></li>
17             <li><a href="#menu" class="hover:text-brown-600">Menu</a></li>
18             <li><a href="#about" class="hover:text-brown-600">About</a></li>
19             <li><a href="#contact" class="hover:text-brown-600">Contact</a></li>
20         </ul>
21         <button class="md:hidden p-2 bg-brown-600 text-white rounded">≡</button>
22     </nav>
23
24     <!-- Hero Section -->
25     <section id="home" class="h-screen flex flex-col items-center justify-center text-center bg-[url('https://images.unsplash.com')]>
26         <div class="bg-black/50 absolute inset-0"></div>
27         <div class="relative z-10 text-white">
28             <h1 class="text-5xl md:text-6xl font-bold">Welcome to Café Delight</h1>
29             <p class="mt-4 text-lg">Freshly brewed coffee & homemade pastries</p>
30             <button class="mt-6 px-6 py-3 bg-brown-600 rounded-lg hover:bg-brown-700 transition">Explore Menu</button>
31         </div>
32     </section>

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<!-- Menu Section -->
<section id="menu" class="py-20 px-6 md:px-20 bg-gray-50">
<h2 class="text-4xl font-extrabold text-center text-amber-700 mb-14">Our Menu</h2>
<div class="grid gap-10 sm:grid-cols-1 md:grid-cols-2 lg:grid-cols-3">
    <div class="bg-white rounded-2xl shadow-md hover:shadow-xl transition duration-300 p-6 text-center flex flex-col justify-between">
        
        <div>
            <h3 class="text-2xl font-semibold text-amber-800 mb-2">Cappuccino</h3>
            <p class="text-gray-600 mb-2">Rich espresso with creamy milk foam.</p>
            <p class="text-lg font-bold text-gray-800">₹150</p>
            <button class="mt-4 px-6 py-2 bg-amber-600 text-white font-medium rounded-lg hover:bg-amber-700 transition duration-300">
                <span>Add to Cart</span>
            </button>
        </div>
    </div>

    <div class="bg-white rounded-2xl shadow-md hover:shadow-xl transition duration-300 p-6 text-center flex flex-col justify-between">
        
        <div>
            <h3 class="text-2xl font-semibold text-amber-800 mb-2">Croissant</h3>
            <p class="text-gray-600 mb-2">Flaky, buttery French pastry.</p>
            <p class="text-lg font-bold text-gray-800">₹80</p>
            <button class="mt-4 px-6 py-2 bg-amber-600 text-white font-medium rounded-lg hover:bg-amber-700 transition duration-300">
                <span>Add to Cart</span>
            </button>
        </div>
    </div>

```

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<div class="bg-white rounded-2xl shadow-md hover:shadow-xl transition duration-300 p-6 text-center flex flex-col justify-l
Latte</h3>
| <p class="text-gray-600 mb-2">Smooth espresso with steamed milk.</p>
| <p class="text-lg font-bold text-gray-800">₹130</p>
| <button class="mt-4 px-6 py-2 bg-amber-600 text-white font-medium rounded-lg hover:bg-amber-700 transition duration-300
|   Add to Cart
| </button>
| </div>
| </div>
| </div>
</section>

<section id="about" class="py-20 px-6 md:px-20 bg-amber-50">
  <div class="max-w-3xl mx-auto text-center">
    <h2 class="text-4xl font-extrabold text-amber-700 mb-6">About Us</h2>
    <p class="text-gray-700 leading-relaxed text-lg">
      At <span class="font-semibold text-amber-800">Café Delight</span>, we believe every cup of coffee tells a story. Our be
    </p>
  </div>
</section>

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<section id="contact" class="py-20 px-6 md:px-20 bg-white">
  <h2 class="text-4xl font-extrabold text-center text-amber-700 mb-10">Get in Touch</h2>
  <form id="contact-form" action="https://formspree.io/f/mblknoy" method="POST" class="max-w-xl mx-auto space-y-6">
    <input type="text" name="name" placeholder="Your Name" required class="w-full p-4 border border-gray-300 rounded-lg focus:outline-0">
    <input type="email" name="email" placeholder="Your Email" required class="w-full p-4 border border-gray-300 rounded-lg focus:outline-0">
    <textarea name="message" placeholder="Your Message" rows="4" required class="w-full p-4 border border-gray-300 rounded-lg focus:outline-0">
    <button type="submit" class="w-full px-6 py-4 bg-amber-700 text-white font-semibold rounded-lg hover:bg-amber-800 transition">
      Send Message
    </button>
  </form>

  <script>
    document.getElementById("contact-form").addEventListener("submit", async function(e) {
      e.preventDefault(); // stop default redirect to Formspree JSON page
      const form = e.target;
      const data = new FormData(form);

      const response = await fetch(form.action, {
        method: form.method,
        body: data,
        headers: { 'Accept': 'application/json' }
      });

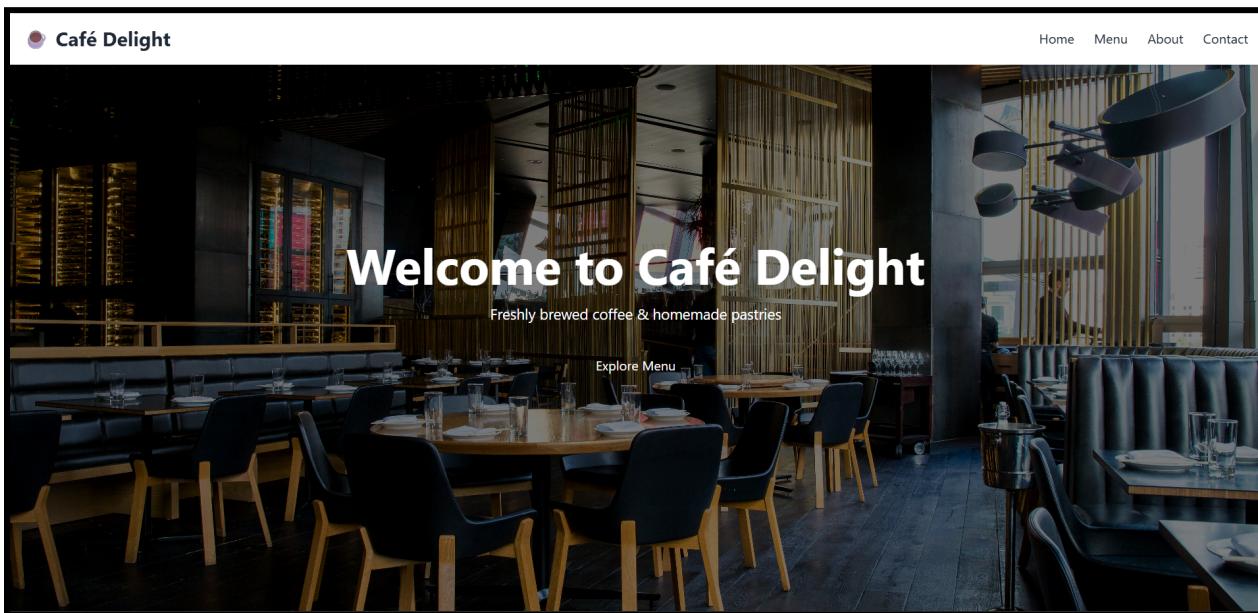
      if (response.ok) {
        window.location.href = "thankyou.html"; // redirect manually
      } else {
        alert("There was a problem submitting the form.");
      }
    });
  </script>

```

```

thankyou.html ✘
thankyou.html ...
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4    <meta charset="UTF-8" />
5    <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
6    <title>Thank You!</title>
7    <script src="https://cdn.tailwindcss.com"></script>
8  </head>
9  <body class="bg-amber-50 flex items-center justify-center min-h-screen text-center">
10
11    <div class="bg-white p-10 rounded-lg shadow-lg max-w-lg">
12      <h1 class="text-4xl font-bold text-amber-700 mb-4">Thank You!</h1>
13      <p class="text-gray-700 text-lg">Your message has been received. We'll get back to you soon!</p>
14      <a href="index.html" class="inline-block mt-6 px-6 py-3 bg-amber-700 text-white rounded-lg hover:bg-amber-800 transition">
15        </div>

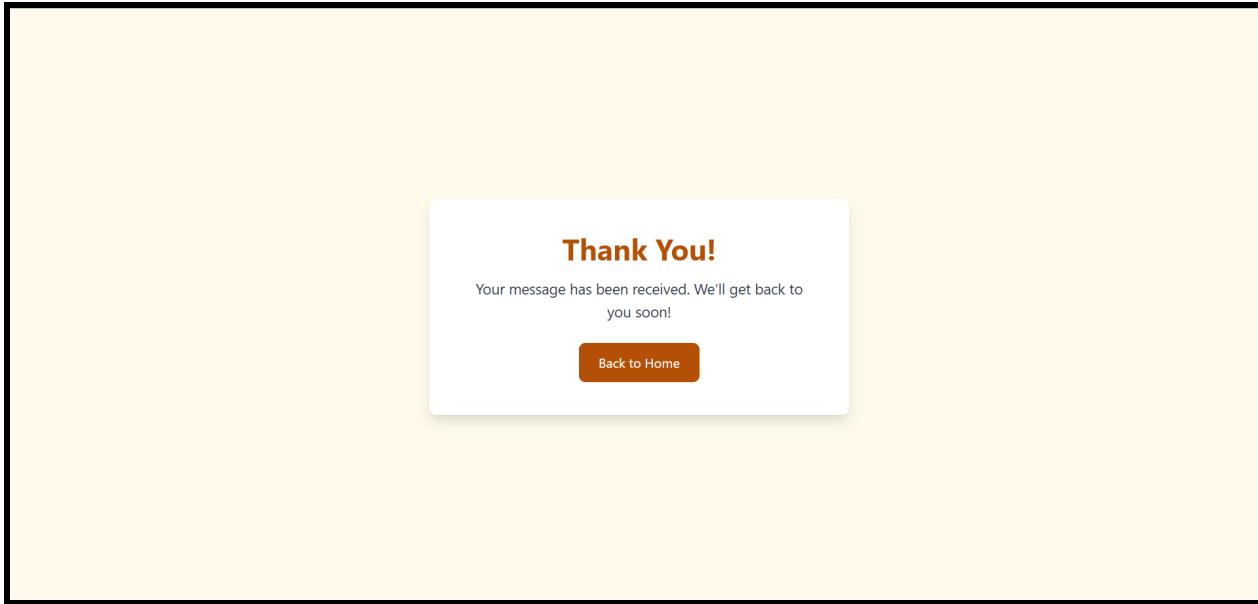
```

Implementation:

The image shows the "Our Menu" page of the Café Delight website. The background is white. At the top center, the heading "Our Menu" is displayed in a bold, orange, sans-serif font. Below this, there are three menu items, each presented in its own white rectangular box with rounded corners. Each box contains a small image of the food item, the name of the item in bold orange text, a brief description in smaller gray text, the price in bold black text, and an "Add to Cart" button at the bottom. The first item is "Cappuccino" (Rich espresso with creamy milk foam, ₹150). The second item is "Croissant" (Flaky, buttery French pastry, ₹80). The third item is "Latte" (Smooth espresso with steamed milk, ₹130).

The screenshot shows the 'About Us' page of the Café Delight website. At the top left is the logo 'Café Delight'. At the top right are links for 'Home', 'Menu', 'About', and 'Contact'. The main content area has a light yellow background. The title 'About Us' is centered at the top of this area. Below it is a paragraph of text: 'At Café Delight, we believe every cup of coffee tells a story. Our beans are sourced from sustainable farms, and our pastries are baked fresh daily. Whether you're here to work, relax, or catch up with friends, our cozy café is your perfect spot.' Below the text is a section titled 'Get in Touch' with two input fields: 'Your Name' and 'Your Email'.

The screenshot shows the 'Get in Touch' page of the Café Delight website. At the top left is the logo 'Café Delight'. At the top right are links for 'Home', 'Menu', 'About', and 'Contact'. The main content area has a white background. The title 'Get in Touch' is centered at the top. Below it are three input fields: 'EXP_10', 'nagdev@test.com', and a message box containing the text 'Hi from [taniya nagdev](#)'. At the bottom is a large brown button labeled 'Send Message'. A dark blue footer bar at the bottom contains the copyright text: '© 2025 Café Delight. All Rights Reserved.'



Conclusion:

By using Tailwind CSS, responsive and interactive UIs can be built efficiently with minimal custom CSS. Its utility-first approach, responsive breakpoints, and interactive state classes enable developers to create modern, consistent, and user-friendly designs quickly.