

Experiment 1: Building Responsive and Interactive UIs using Tailwind CSS

Aim:

To design and implement a responsive, interactive landing page for an online education platform using React.js and Tailwind CSS, demonstrating the use of utility classes for styling, responsiveness, and interactivity.

Theory:

What is Tailwind CSS?

Tailwind CSS is a **utility-first CSS framework** that provides a large set of low-level utility classes for building fully custom user interfaces without leaving your HTML or JSX. Unlike frameworks like Bootstrap, which provide prebuilt UI components, Tailwind focuses on giving developers the building blocks to create their own designs quickly and consistently.

Responsive Design with Tailwind CSS

Responsive design ensures that websites adapt fluidly to different screen sizes such as desktops, tablets, and mobile devices.

Tailwind CSS uses **mobile-first responsive design** and provides breakpoint prefixes to target specific screen sizes.

Common breakpoints in Tailwind CSS:

- **sm** – Small screens ($\geq 640\text{px}$)
- **md** – Medium screens ($\geq 768\text{px}$)
- **lg** – Large screens ($\geq 1024\text{px}$)
- **xl** – Extra large screens ($\geq 1280\text{px}$)
- **2xl** – 2x Extra large screens ($\geq 1536\text{px}$)

Example: `md:text-lg`

This applies `text-lg` only when the viewport is at least 768px wide.

Interactive UIs with Tailwind CSS

Tailwind CSS makes it easy to implement UI interactivity through **state variants** that respond to user actions.

Common state variants:

- `hover`: → Apply styles when the user hovers over the element.
- `focus`: → Apply styles when the element is focused.
- `active`: → Apply styles when an element is being clicked.
- `disabled`: → Apply styles when an element is disabled.

Example: `bg-blue-500 hover:bg-blue-600`

The background changes from `blue-500` to `blue-600` when hovered.

Overview:

This project is a **modern, responsive, and interactive landing page** built with **React** and **Tailwind CSS**.

The chosen domain is "**Ecological Travelling**" — a fictional company providing Eco friendly travelling services.

The landing page is **component-based** for clean structure and reusability, making it easy to maintain or extend in future.

It is designed to: **Look modern** using Tailwind's utility classes. **Adapt to all screen sizes** using responsive breakpoints. **Engage users interactively** with hover effects and smooth transitions.

Features:

1. Responsive Navigation Bar:

2. Hero Section:

- Catchy headline introducing the company.

- Supporting text for the value proposition.
- Call-to-action buttons (“Get Started” & “Learn More”).
- Responsive image/illustration on the side.

3. Services Section:

- Cards showing different services (e.g., AI Consulting, Cloud Solutions, Automation).
- Icons and short descriptions.
- Hover effects with shadow and scaling.

4. About Section:

- Brief company story.
- Highlights of expertise and mission.
- Image or graphic to make it engaging.

5. Call-to-Action Section:

- Eye-catching background gradient.
- Invitation text with a primary action button.
- Designed to stand out and convert visitors.

6. Footer:

- Quick navigation links.
- Social media icons.
- Copyright notice.

Responsive & Interactive Elements

- **Responsive design** using Tailwind breakpoints (`sm`, `md`, `lg`, `xl`).
- **Hover states** for buttons and cards (`hover: bg-blue-600, hover: scale-105`).
- **Transitions** for smooth animations (`transition duration-300 ease-in-out`).
- **Mobile-first** layout with grid and flex adjustments.

Source Code:

1. App.jsx:

```

import Navbar from "../components/Navbar";
import Hero from "../components/Hero";
import Destinations from "../components/Destinations";
import TourPackages from "../components/TourPackages";
import Features from "../components/Features";
import Packages from "../components/Packages";
import Footer from "../components/Footer";

Windsurf: Refactor | Explain | Generate JSDoc | X
export default function Home() {
  return (
    <>
      <Navbar />
      <Hero />
      <Destinations />
      <TourPackages />
      <Features />
      <Packages />
      <Footer />
    </>
  );
}

```

2. Navbar:

```

export default function Navbar() {
  <header className="bg-white/95 backdrop-blur-md shadow-sm sticky top-0 z-50 transition-all duration-300">
    <div className="max-w-7xl mx-auto px-6 py-4 flex justify-between items-center">
      <div className="flex items-center space-x-2">
        <div className="w-8 h-8 bg-gradient-to-br from-green-500 to-emerald-600 rounded-lg flex items-center">
          <span className="text-white font-bold text-sm">EcoTravel</span>
        </div>
        <h1 className="text-2xl font-bold bg-gradient-to-r from-green-600 to-emerald-600 bg-clip-text text-truncate">EcoTravel</h1>
      </div>
      <nav className="space-x-8 hidden md:flex">
        <a href="#destinations" className="text-gray-700 hover:text-green-600 transition-colors duration-200">Destinations</a>
        <a href="#tours" className="text-gray-700 hover:text-green-600 transition-colors duration-200 font-medium">Tour Packages</a>
        <a href="#features" className="text-gray-700 hover:text-green-600 transition-colors duration-200 font-medium">Why Choose Us</a>
        <a href="#packages" className="text-gray-700 hover:text-green-600 transition-colors duration-200 font-medium">Pricing</a>
      </nav>
    </div>
  </header>

```

3. Hero section:

```

import React from "react";
import { ChevronRight } from "lucide-react"

Windsurf: Refactor | Explain | Generate JSDoc | X
export default function Hero() {
  return (
    <section className="relative bg-gradient-to-br from-green-50 via-emerald-50 to-teal-50 overflow-hidden">
      {/* Background decoration */}
      <div className="absolute inset-0 opacity-10">
        <div className="absolute top-20 left-10 w-72 h-72 bg-green-400 rounded-full mix-blend-multiply filter blur-3xl" style={{ transform: "translate(-50%, -50%)" }}></div>
        <div className="absolute top-40 right-10 w-72 h-72 bg-emerald-400 rounded-full mix-blend-multiply filter blur-3xl" style={{ transform: "translate(-50%, -50%)" }}></div>
        <div className="absolute -bottom-8 left-20 w-72 h-72 bg-teal-400 rounded-full mix-blend-multiply filter blur-3xl" style={{ transform: "translate(0, 50%)" }}></div>
      </div>

      <div className="relative max-w-7xl mx-auto px-6 py-24 flex flex-col md:flex-row items-center">
        <div className="flex-1 z-10">
          <div className="flex items-center px-4 py-2 bg-white/80 backdrop-blur-sm rounded-full text-sm font-medium">
            <span className="w-2 h-2 bg-green-500 rounded-full mr-2 animate-pulse"></span>
            Sustainable Travel Made Easy
          </div>
          <h2 className="text-5xl md:text-6xl font-bold leading-tight mb-6">
            Travel <span className="bg-gradient-to-r from-green-600 to-emerald-600 bg-clip-text text-transparent">Explore the World</span>
          </h2>
          <p className="text-xl text-gray-600 mb-8 leading-relaxed max-w-lg">
            Experience breathtaking destinations while minimizing your carbon footprint. Join thousands of conscious travelers.
          </p>
          <div className="flex flex-col sm:flex-row gap-4">
            <button className="bg-gradient-to-r from-green-600 to-emerald-600 text-white px-8 py-4 rounded-full">
              Start Your Journey
              <svg className="w-5 h-5 ml-2 group-hover:translate-x-1 transition-transform" fill="none" stroke="currentColor" style={{ transform: "translate(-50%, -50%)" }}>
                <path strokeLinecap="round" strokeLinejoin="round" strokeWidth={2} d="M17 814 4m0 0l-4 4m4-4H3" />
              </svg>
            </button>
            <button className="bg-white/80 backdrop-blur-sm border border-gray-200 text-gray-700 px-8 py-4 rounded-full">
              <ChevronRight />
            </button>
          </div>
        </div>
      </div>
    </section>
  )
}

```

4. Body(includes Destination, TourPackages,Packages,Features):


```

export default function Packages() {
  const packages = [
    ...
  ];

  return (
    <section id="packages" className="bg-gradient-to-br from-green-50 via-emerald-50 to-teal-50 py-24 relative overflow-hidden">
      /* Background decoration */
      <div className="absolute top-0 left-0 w-full h-full opacity-10">
        <div className="absolute top-20 right-10 w-96 bg-green-400 rounded-full mix-blend-multiply filter blur-3xl"></div>
        <div className="absolute bottom-20 left-10 w-96 h-96 bg-emerald-400 rounded-full mix-blend-multiply filter blur-3xl"></div>
      </div>

      <div className="relative max-w-7xl mx-auto px-6 text-center">
        <div className="mb-16">
          <div className="inline-flex items-center px-4 py-2 from-white/80 backdrop-blur-sm rounded-full text-sm font-medium text-green-700 mb-4">
            <span className="w-2 h-2 bg-green-500 rounded-full mr-2"></span>
            Choose Your Adventure
          </div>
          <h3 className="text-4xl md:text-5xl font-bold text-gray-900 mb-4">
            Our <span className="bg-gradient-to-r from-green-600 to-emerald-600 bg-clip-text text-transparent">Packages</span>
          </h3>
          <p className="text-xxl text-gray-600 max-w-3xl mx-auto">
            Carefully crafted experiences that combine adventure, sustainability, and unforgettable memories.
          </p>
        </div>

        <div className="grid grid-cols-1 md:grid-cols-3 gap-8 lg:gap-12">
          {packages.map((pkg, index) =>
            <div key={index} className="relative group ${pkg.popular ? 'transform scale-105' : ''}">
              {pkg.popular && (
                <div className="absolute -top-4 left-1/2 transform -translate-x-1/2 z-10">
                  <div className="bg-gradient-to-r from-green-600 to-emerald-600 text-white px-6 py-2 rounded-full text-sm font-semibold shadow-lg group-hover:scale-105">
                    Most Popular
                  </div>
                </div>
              )
            </div>
          )
        </div>
      </div>
    </section>
  );
}

```

5. Footer:

```

export default function Footer() {
  /* Main footer content */
  <div className="grid grid-cols-1 md:grid-cols-4 gap-8 mb-12">
    /* Brand */
    <div className="col-span-1 md:col-span-2">
      <div className="flex items-center space-x-2 mb-4">
        <div className="w-8 h-8 bg-gradient-to-br from-green-500 to-emerald-600 rounded-lg flex items-center justify-center">
          <span className="text-white font-bold text-sm">EcoTravel</span>
        </div>
        <h1 className="text-2xl font-bold bg-gradient-to-r from-green-400 to-emerald-400 bg-clip-text text-transparent">
          EcoTravel
        </h1>
      </div>
      <p className="text-gray-400 mb-6 max-w-md leading-relaxed">
        Making sustainable travel accessible to everyone. Join us in exploring the world while protecting it for future generations.
      </p>
      <div className="flex space-x-4">
        <a href="#" className="w-10 h-10 bg-gray-800 rounded-full flex items-center justify-center hover:bg-green-600 transition-colors">
          <Instagram />
        </a>
        <a href="#" className="w-10 h-10 bg-gray-800 rounded-full flex items-center justify-center hover:bg-green-600 transition-colors">
          <Twitter />
        </a>
        <a href="#" className="w-10 h-10 bg-gray-800 rounded-full flex items-center justify-center hover:bg-green-600 transition-colors">
          <Facebook />
        </a>
      </div>
    </div>
  </div>

  /* Quick Links */
  <div>
    <h3 className="text-lg font-semibold mb-4">Quick Links</h3>
    <ul className="space-y-2">
      <li><a href="#" className="text-gray-400 hover:text-green-400 transition-colors">About Us</a></li>
      <li><a href="#" className="text-gray-400 hover:text-green-400 transition-colors">Destinations</a></li>
      <li><a href="#" className="text-gray-400 hover:text-green-400 transition-colors">Sustainability</a></li>
      <li><a href="#" className="text-gray-400 hover:text-green-400 transition-colors">Blog</a></li>
    </ul>
  </div>
}

```

Output:

1.

 **EcoTravel**

Destinations Tour Packages Why Choose Us Pricing Contact Book Now

Sustainable Travel Made Easy

Travel Sustainably & Explore the World

Experience breathtaking destinations while minimizing your carbon footprint. Join thousands of conscious travelers making a difference.

Start Your Journey → Learn More

50K+ Happy Travelers 200+ Destinations 1M+ Trees Planted



 **EcoTravel**

Destinations Tour Packages Why Choose Us Pricing Contact Book Now

Featured Destinations

Discover breathtaking locations while contributing to conservation efforts and supporting local communities worldwide.



Costa Rica Rainforest America

Explore pristine rainforests and support local conservation efforts

Wildlife Spotting, Canopy Tours, Sustainable Lodges

⌚ 7-10 days, 🌞 Moderate

Explore Destination



Norwegian Fjords Scandinavia

Experience breathtaking fjords with zero-emission transportation

Electric Boat Tours, Hiking Trails, Local Culture

⌚ 5-7 days, 🌞 Easy

Explore Destination



Himalayan Eco Trek Nepal

Trek through the Himalayas while supporting local communities

Mountain Views, Cultural Exchange, Eco Lodges

⌚ 12-15 days, 🌞 Challenging

Explore Destination



Galápagos Islands Ecuador

Discover unique wildlife in this UNESCO World Heritage site

Endemic Species, Marine Life, Conservation Tours

⌚ 8-10 days, 🌞 Easy

Explore Destination

2.

Tour Packages

Immersive experiences designed to create lasting memories while making a positive impact on the destinations you visit.

 Adventure Tours  Cultural Immersion  Wildlife Conservation



300% Carbon Offset 

Amazon Rainforest Expedition

Explore the heart of the Amazon rainforest, immersing yourself in its lush biodiversity. Stay in eco-lodges and participate in sustainable community projects.



250% Carbon Offset 

Patagonia Glacier Trek

Trek through pristine glacial landscapes while supporting climate research. Stay in local lodges and experience traditional Patagonian culture.

Why Choose EcoTravel?

We're committed to making travel sustainable, responsible, and unforgettable for conscious explorers worldwide.



Eco-Friendly Stays

Partnered with sustainable hotels & lodges certified for environmental responsibility.



Carbon Offset

We offset 150% of your travel emissions through verified tree planting programs.

→



Local Experiences

Support local communities while enjoying authentic cultural experiences.

3.

The screenshot shows the "Our Packages" section of the EcoTravel website. It features three main package offerings:

- Weekend Escape**: \$299 per person. Includes 2 Nights Stay, Eco-Lodge Accommodation, Guided Nature Tour, Organic Meals, and Carbon Offset Included. [Choose Package](#)
- Adventure Week**: \$699 per person. Includes 7 Nights Stay, Multiple Destinations, All Activities Included, Local Guide, and Tree Planting Experience. [Choose Package](#)
- Luxury EcoTrip**: Includes 5-Star Eco Resorts, Private Guide, Exclusive Access, Helicopter Tours, and Conservation Projects. [Get Quote](#)

Carefully crafted experiences that combine adventure, sustainability, and unforgettable memories.

4.

The screenshot shows the footer section of the EcoTravel website. It includes:

- EcoTravel** logo and tagline: Making sustainable travel accessible to everyone. Join us in exploring the world while protecting it for future generations.
- Social media links: Instagram, Twitter, Facebook.
- Quick Links**: About Us, Destinations, Sustainability, Blog.
- Support**: Help Center, Contact Us, Privacy Policy, Terms of Service.
- Stay Updated**: Get the latest eco-travel tips and exclusive offers. Enter your email [Subscribe](#)
- © 2025 EcoTravel. All rights reserved. Made with ❤️ for the planet.
- Carbon Neutral Certified badge.

To view this project's source code: <https://github.com/prakhar362/FSD01>

This is the live demo deployed in vercel: <https://fsd-01.vercel.app/>

Conclusion:

By leveraging Tailwind CSS utility classes along with responsive prefixes and interactive state variants, developers can rapidly build UI components that adapt to different screen sizes and provide rich interactive feedback without writing custom CSS. This experiment demonstrates the practical use of Tailwind for modern frontend development by combining these concepts.