Welcome to Our Project Presentation

Assalamu Alaikum respected teachers and classmates. We are honored to present our group project WeatherNow – A Modern Weather Detecting App. Our team name is TC-Cloudly, and we are students of the 5th semester from the Computer Science & Technology department. Let's explore how we built a real-time weather app using web technologies and JavaScript APIs.

WeatherNow – A Modern Weather Detecting App

Our Team: TC-Cloudly

Project Leader: Ahat Hasan Rahul

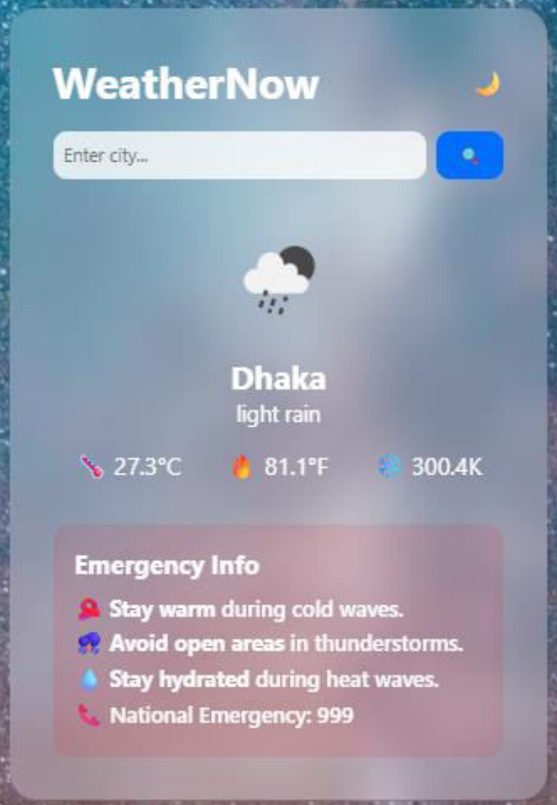
Team Members:

- Md Sohab
- Md Sohan
- Md Rohan
- Imtiaz Hossain

Academic Background

Department: Computer Science & Technology

Semester: 5th



Project Overview

Global Search

Allows users to search for weather information in any city across the globe.

Flexible Temperature Units

View temperature in Celsius, Fahrenheit, and Kelvin for user convenience.

Visual Weather Display

Get intuitive weather icons and detailed descriptions for current conditions.

Safety Tips

Access crucial emergency weather safety tips to help users prepare for adverse conditions.

This application leverages HTML, CSS, JavaScript, and the OpenWeatherMap API to deliver a comprehensive weather experience.

Purpose of the Project

User-Friendly System

To create an intuitive and accessible weather detection system for general use.

Practical Development Experience

To gain hands-on experience in the full lifecycle of web application development.

API Integration Skills

To understand and implement real-time data fetching and manipulation using APIs.

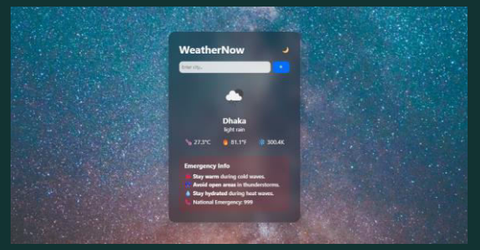
Weather Awareness

To promote public awareness about weather phenomena and associated safety guidelines.

Main Features

Global City Search

Easily search for weather information in any city around the world, providing instant access to global forecasts.

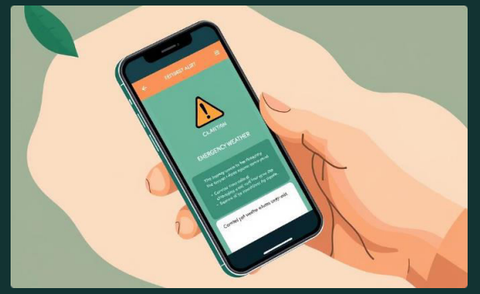


Detailed Weather Display

Get comprehensive weather details including city name, clear weather descriptions, intuitive icons, and flexible temperature units (°C, °F, K).

Light/Dark Mode

Customize your viewing experience with a convenient light and dark mode switch for optimal comfort day or night.



Emergency Safety Tips

Access crucial emergency weather safety tips directly within the app, helping users prepare for adverse conditions.

Code Overview – HTML

Core Structure

The HTML provides the foundational structure for the WeatherNow application, defining the layout and content hierarchy.

Key Components

It includes essential sections like the search bar for city input, a dedicated weather card to display current conditions, and an emergency safety tips panel.

Responsive Design

Utilizes semantic HTML5 elements to ensure responsiveness across various devices and to improve accessibility.

Code Overview – JavaScript

> Our JavaScript code orchestrates the dynamic functionalities of WeatherNow, making it an interactive and real-time application.

API Integration

Uses the OpenWeatherMap API to asynchronously fetch comprehensive weather data based on user input.

Unit Conversion

Includes functions to convert temperature from Kelvin (API default) to user-friendly Celsius and Fahrenheit scales.

DOM Manipulation

Dynamically updates the Document Object Model (DOM) to display real-time weather information and associated visuals.

User Interface Control

Manages user interface interactions, including the light/dark mode toggle for personalized viewing.

Code Overview – CSS

Glassmorphism Design

The CSS implementation features a contemporary glassmorphism design, providing a sleek, frosted glass effect to UI elements.

Responsive and Modern

Ensures the application is fully responsive, adapting seamlessly to different screen sizes, while maintaining a modern and engaging visual aesthetic.

Dark Mode Support

Includes comprehensive styling for both light and dark modes, allowing users to switch themes based on their preference or environment.

What We Learned

JavaScript & DOM Mastery

Developed proficiency in real-world JavaScript applications and dynamic DOM manipulation.

UI/UX Principles

Applied fundamental UI/UX design principles to create an intuitive and visually appealing web application.

Public API Utilization

Gained experience in integrating and working with external public APIs for data retrieval.

Team Collaboration

Enhanced skills in collaborative development environments and efficient version control practices.

Thank You

TC-Cloudly | Project Leader: Ahat Hasan Rahul

We sincerely appreciate your attention. We are now happy to answer any questions you may have regarding WeatherNow – A Modern Weather App.