Pocket-Friendly Weather Website

The Pocket-Friendly Weather Website is a lightweight, ad-free web app that provides real-time weather updates using the OpenWeatherMap API. Designed for users with limited data or basic devices, it offers a clean, responsive interface for quick access to temperature, humidity, and forecasts—making weather information simple, fast, and accessible to all.

Problem Statement

- In today's digital age, accessing accurate weather information has become essential for day-to-day planning, especially for people like farmers, travelers, and event organizers. However, many weather applications or websites are either bloated with ads, require subscriptions, or are heavy on data usage. This project aims to solve the problem of creating a lightweight, low-data, user-friendly weather website that delivers accurate and real-time weather updates with minimal costs

Objectives

- To create a lightweight and budget-friendly weather website suitable for daily use.
- To provide real-time weather information such as temperature, humidity, wind conditions, and short-term forecasts.
- To ensure that the website runs smoothly on low-speed networks and basic smartphones.
- To design a clutter-free, easy-to-use interface that appeals to users of all age groups.
- To keep the project free of cost both in development and user experience.

Tools and Technologies Used

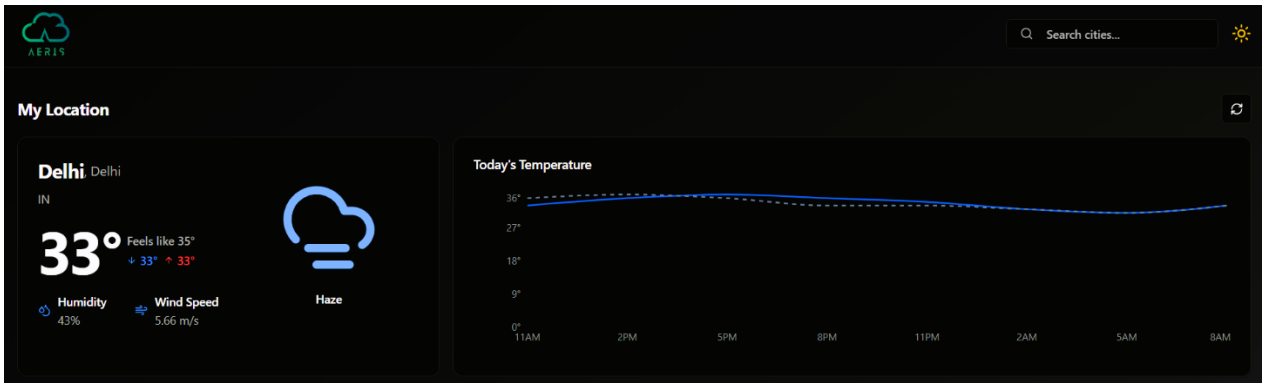
- React - Frontend library
- TypeScript - Static typing
- TanStack Query - Data fetching and state management
- React Router - Navigation management
- Tailwind CSS - Styling
- Recharts - Data visualization

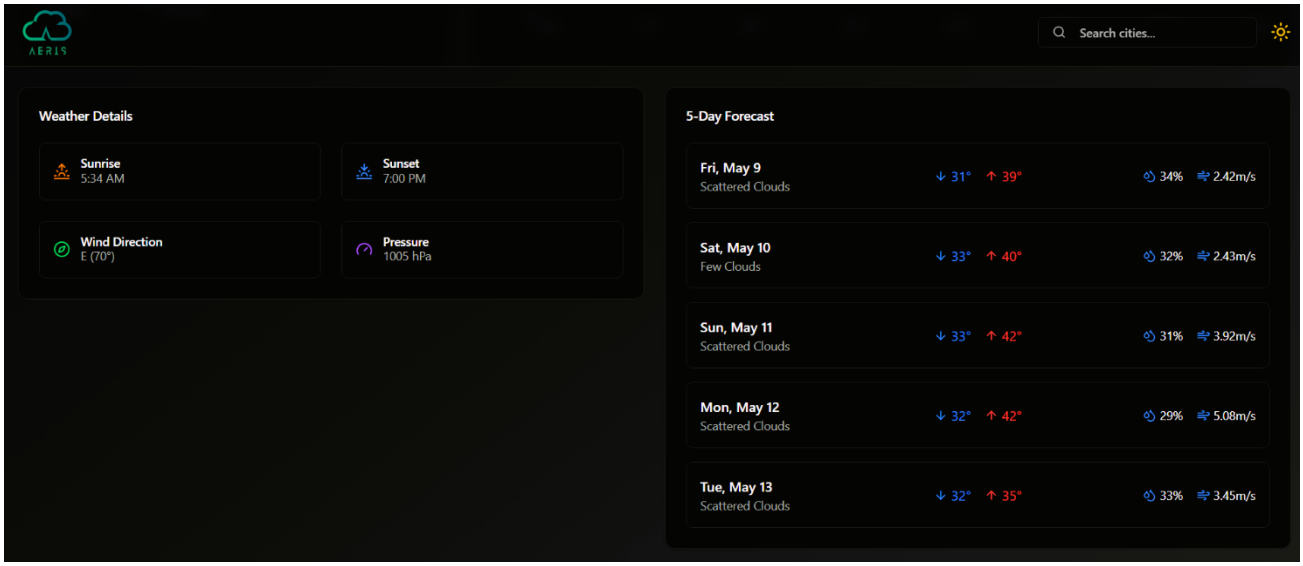
- Vite - Build tool

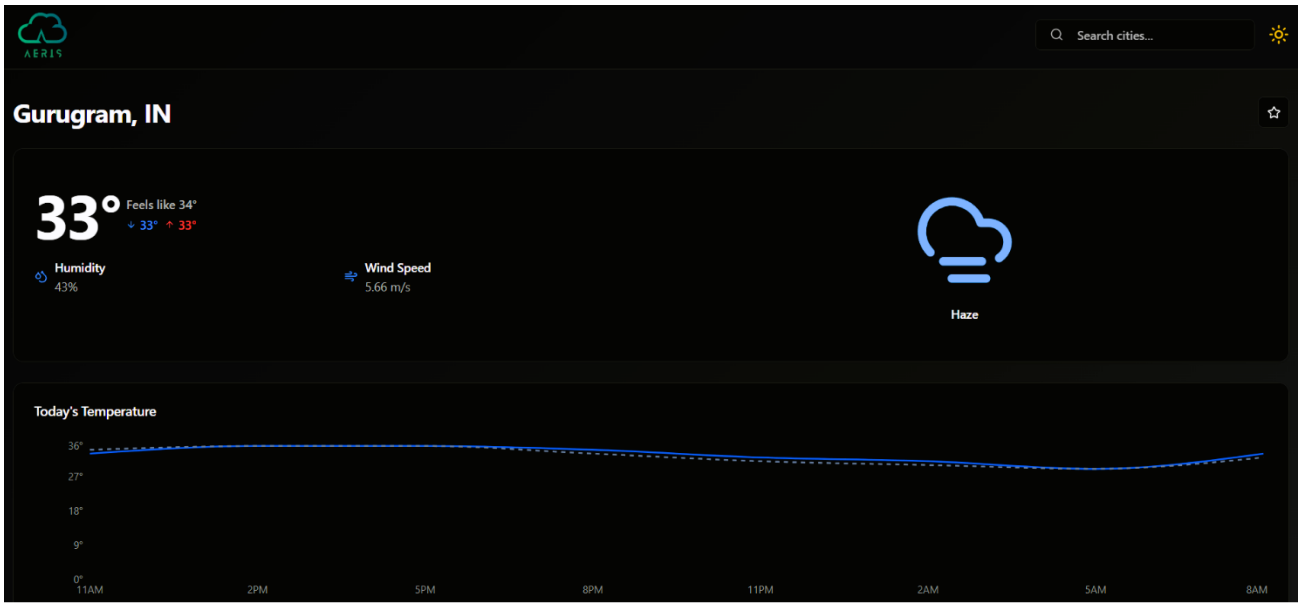
Key Features

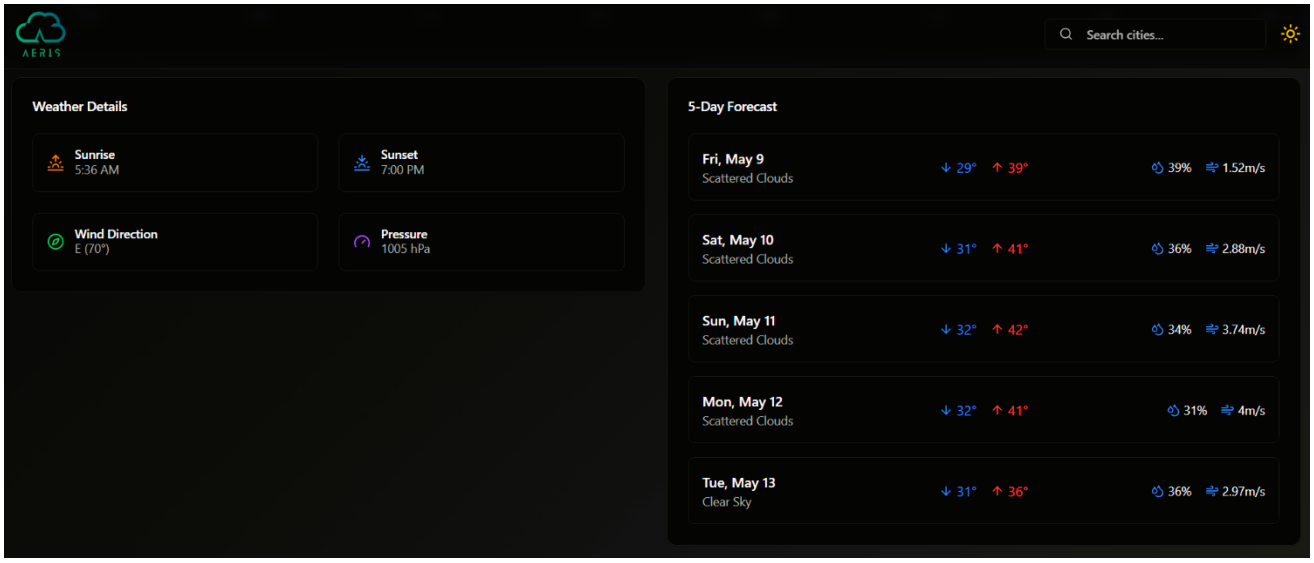
- Live weather data retrieval based on city search or device location.
- Mobile-friendly layout that adapts to different screen sizes.
- Fast loading pages designed for low bandwidth usage.
- No advertisements or pop-ups, making it distraction-free.
- Support for multiple cities with quick-switch options.
- Visual indicators like weather icons and color themes to represent weather conditions clearly.

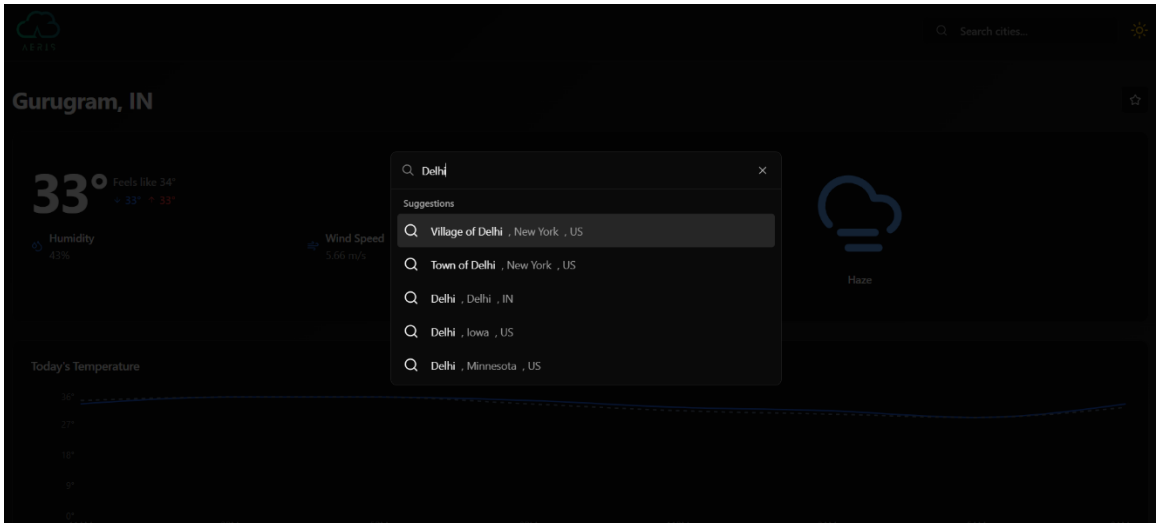
Screenshot Of website




AERIS
Search cities...
Weather Details
Sunrise
5:34 AM
Sunset
7:00 PM
Wind Direction
E (70°)
Pressure
1005 hPa
5-Day Forecast
Fri, May 9
Scattered Clouds
↓ 31° ↑ 39°
34% 2.42m/s
Sat, May 10
Few Clouds
↓ 33° ↑ 40°
32% 2.43m/s
Sun, May 11
Scattered Clouds
↓ 33° ↑ 42°
31% 3.92m/s
Mon, May 12
Scattered Clouds
↓ 32° ↑ 42°
29% 5.08m/s
Tue, May 13
Scattered Clouds
↓ 32° ↑ 35°
33% 3.45m/s


AERIS
Search cities...
Gurugram, IN
33°
Feels like 34°
↓ 33° ↑ 33°
Humidity
43%
Wind Speed
5.66 m/s
Haze
Today's Temperature
36°
27°
18°
9°
0°
11AM
2PM
5PM
8PM
11PM
2AM
5AM
8AM





Conclusion

The "Pocket-Friendly Weather Website" project demonstrates a practical approach to delivering important weather updates through a clean and accessible digital platform. It shows that even with minimal resources and free tools, it is possible to create a useful,

efficient, and user-friendly web application that meets the basic needs of everyday users without extra costs.

Future Work

- Add support for regional languages to reach a broader audience.
- Enable weather alerts and notifications for extreme conditions.
- Introduce forecast graphs and data visualization for better insights.
- Convert the site into a Progressive Web App (PWA) for offline functionality.
- Use multiple data sources for improved weather accuracy and reliability.

Website Link

https://aerisapp.onrender.com/

Team

- Daksh Jhamb (2401730206) (B.Tech CSE (AI-ML)
- Harshit (2401730190) (B.Tech CSE (AI-ML)
- Piyush (2401730265) (B.Tech CSE (AI-ML)
- Utkrisht (2401730281) (B.Tech CSE (AI-ML)

K.R. MANGALAM UNIVERSITY