# INTRODUCTION:

The **Weather Website Project** is designed to provide users with up-to-date, accurate, and location-specific weather information in a user-friendly and visually appealing format. With weather playing a critical role in daily decision-making, this project aims to bridge the gap between real-time meteorological data and the end user by offering an intuitive, easily navigable web interface that delivers relevant weather information.

In today's fast-paced world, people rely on weather forecasts for everything from planning daily activities to making critical decisions related to travel, work, or leisure. This project leverages modern web technologies to offer users a reliable and engaging platform for accessing current weather conditions, forecasts, and additional meteorological data such as wind speed, humidity, pressure, and more.

## Objectives and Features:

The primary goal of this project is to build an interactive weather website that serves a range of features to enhance the user experience, including:

- **Real-time Weather Data:** The website retrieves up-to-date weather information from a third-party API providing users with accurate data based on their location or manual city search.
- **Location Search: Users** can manually enter a city name their location and display the weather for that area.
- **Weather Forecasts:** The website offers short-term and long-term forecasts, detailing weather conditions over the next several days, allowing users to plan ahead.
- **Detailed Weather Information:** In addition to basic temperature data, the site provides users with a comprehensive breakdown of weather conditions, including wind speed, humidity, air pressure.
- **User-Friendly Interface:** The website is designed with a clean, minimalist interface that ensures a seamless and enjoyable browsing experience, whether on a desktop or mobile device.
- **Responsive Design:** The site is fully responsive, meaning it adjusts seamlessly to different screen sizes, providing an optimal user experience across desktop, tablet, and mobile devices.

# PROBLEM STATEMENT

**Objective:** Develop a weather forecast application that displays the current weather and a 5-day forecast.

**Approach: -**

- Utilize HTML to structure the app layout with sections for weather information.
- Use CSS to style the app and make it visually appealing.
- Use a weather API to fetch real-time weather data based on the user's location or search.

**Bonus Features: -**

- Display weather icons corresponding to the weather conditions (sunny, cloudy, rainy, etc.).
- Add a search bar for users to enter specific locations and get weather data.
- Provide temperature conversions (e.g., Celsius to Fahrenheit) based on user preferences

# TECHNICAL DETAILS

**HTML5** (Hyper Text Markup Language)

- HTML5 is used to structure the content of the website, ensuring it is accessible and SEO-friendly. It provides semantic elements like <header>, <footer>, <section>, and <article> for improved readability and maintainability.

**CSS** (Cascading Style Sheets)

- CSS3 is used to style the website, ensuring that the layout is visually appealing and responsive. Modern CSS techniques such as **Flexbox** or **CSS Grid** are employed to create a flexible, responsive design that adapts to different screen sizes (desktop, tablet, mobile).
- Optional tools like **Sass** or **CSS Variables** can be used to write modular and maintainable styles.

**JavaScript: -**

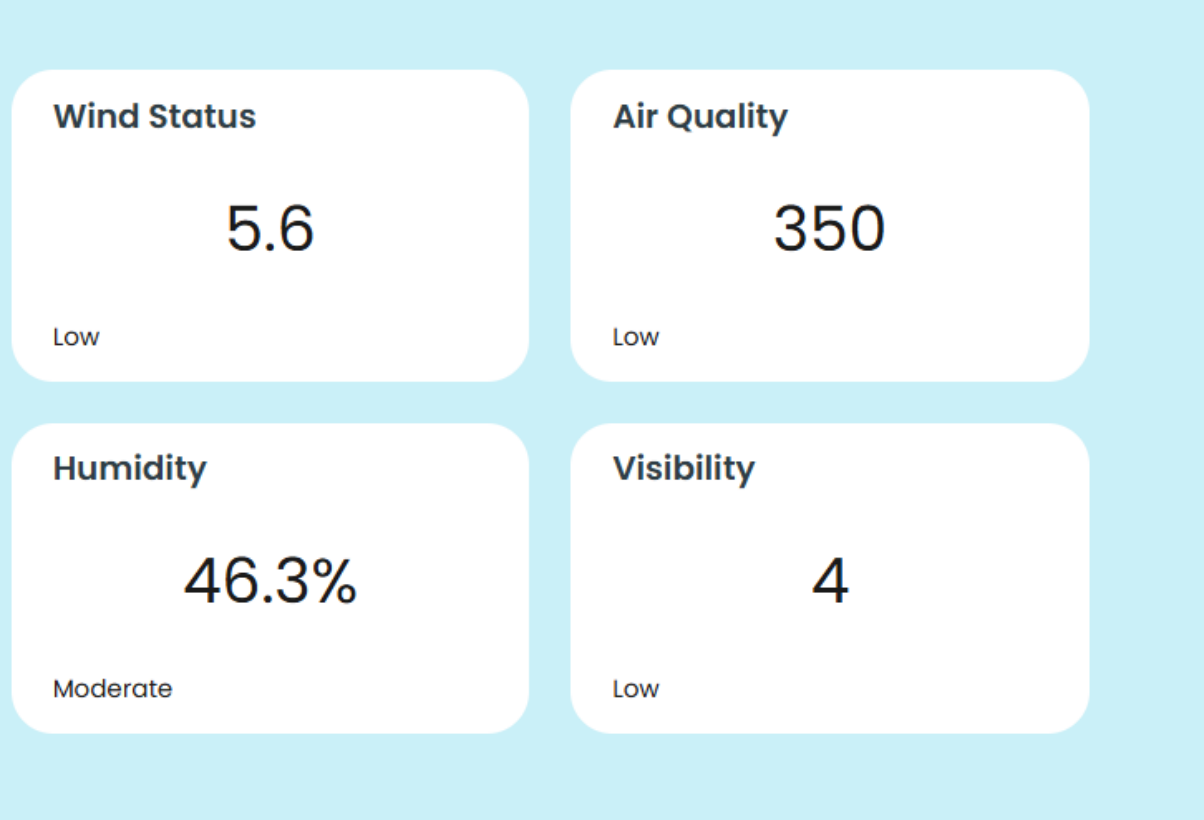
- JavaScript is used for interactivity on the site, such as fetching weather data, updating the UI dynamically, and handling user input (e.g., city search or location detection).
- Features like **Promises**, **async/await**, and **fetch API** are used to make asynchronous calls to external weather APIs and handle data asynchronously.

**Responsive Design: -**

- The site uses **CSS** responsive design to adjust the layout and design based on the screen size, ensuring a mobile-first, responsive experience for users across devices (smartphones, tablets, and desktops).
- Weather icons and images should be optimized (e.g., using **SVGs** for icons or compressed PNG/JPEG files) to reduce page load time.

## KEY FEATURES

**Real-Time Weather Data:** Displays up-to-date weather conditions such as visibilty, wind speed, humidity, and pressure for any location.



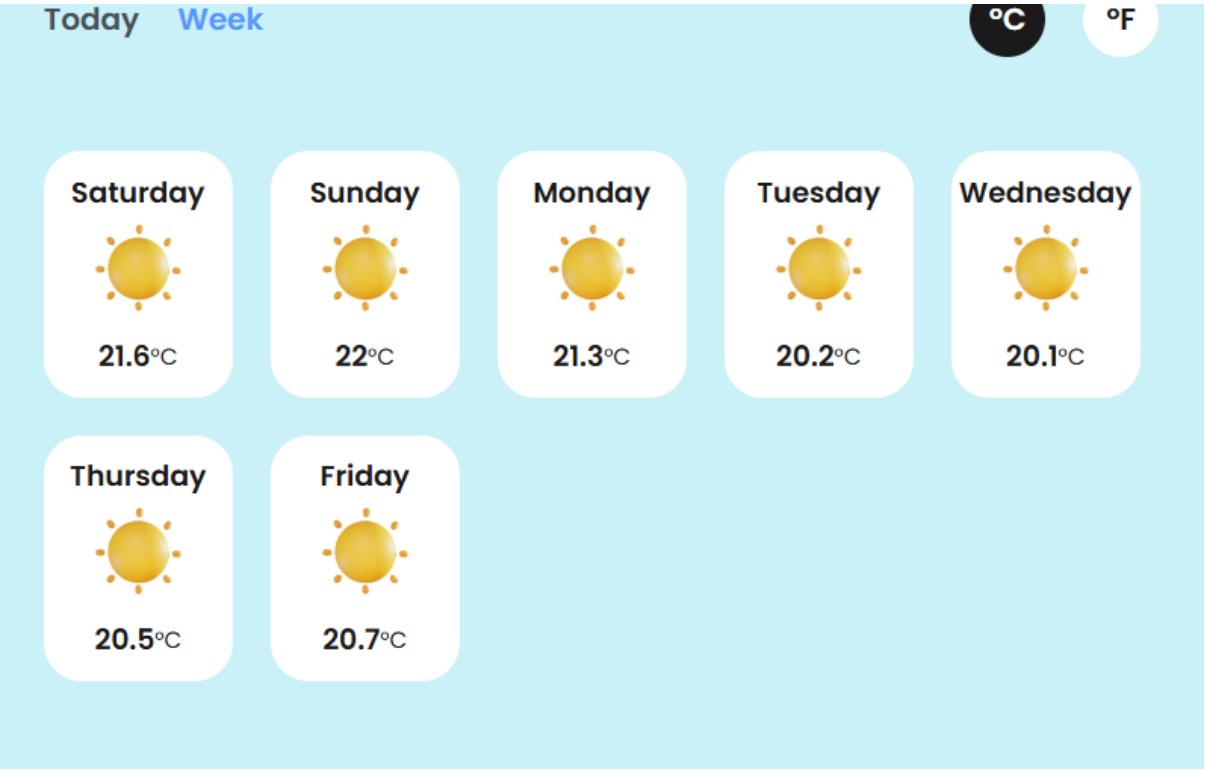

**Location Search:** Users can manually enter a city or location to get the weather information for that place.


**Key Details:**

- **How It Works: Users can type in the name of the city, town, or even specific geographical coordinates (latitude/longitude) into the search bar.**
- **Global Accessibility: Supports searches for locations worldwide, providing weather data regardless of the user's current location.**

- **Accurate Results: Relies on advanced geocoding services to interpret user inputs and map them to precise locations.**
- **Real-Time Updates: Instantly displays weather metrics such as temperature, humidity, wind status, air quality, and visibility for the chosen location.**
- **User-Friendly Interface: Includes features like auto-suggestions, recently searched locations, and error handling for invalid entries.**

**Weather Forecast:** Provides a 7-day forecast, including predicted temperature, precipitation, and other conditions.

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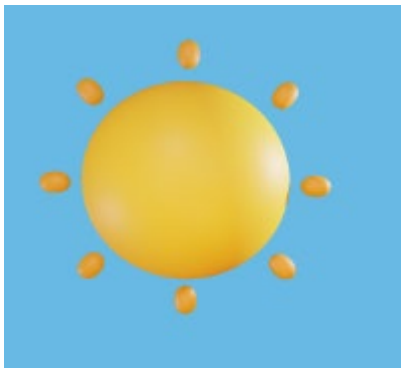
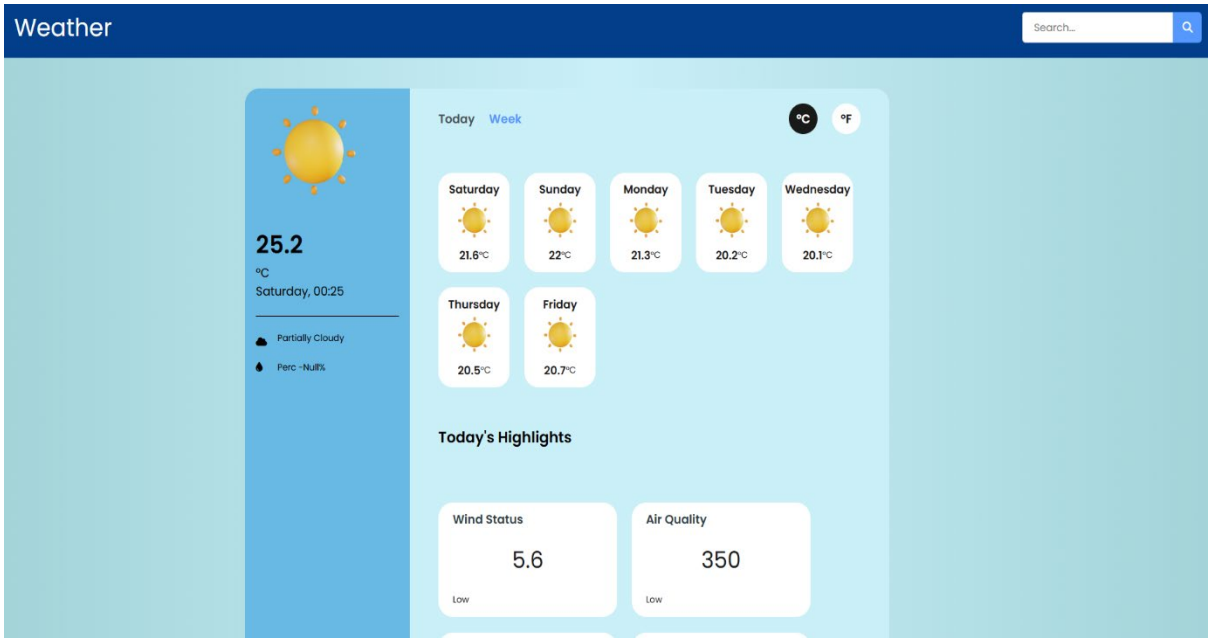
**Weather Icons:** Visual representations (icons) of weather conditions like clear sky, rain, or clouds for a more engaging experience.




**Key Features:**

- **Variety of Icons: Includes a diverse range of symbols to represent common weather conditions such as:**
  - **Clear Sky: A bright sun icon.**
  - **Partly Cloudy: A sun partially obscured by clouds.**
  - **Cloudy: Overcast clouds.**
  - **Rain: Droplets or rain falling from a cloud.**

**User Interface (UI):** Simple, clean, and intuitive design for easy navigation and quick access to weather information.




**Key Features of the UI:**

1. **Clean Layout:**
    - **Organized sections for current conditions, forecasts, and additional details like air quality or wind status.**
    - **Minimalistic design with no clutter, ensuring all essential information is easily visible.**
2. **Intuitive Navigation:**
    - **A clear menu or tab system to switch between features like location search, hourly/daily forecasts, and settings.**
    - **Swipe or scroll actions for quick access to detailed weather metrics.**
3. **Visual Hierarchy:**
    - **Large, bold displays for key information like temperature and weather icons.**
    - **Supporting details (wind, humidity, etc.) shown in smaller text or separate sections.**
4. **Personalization Options:**
    - **Users can customize the interface, such as choosing preferred units (Celsius/Fahrenheit), themes (light/dark mode), or widgets.**
5. **Responsive Design:**

- **Optimized for different screen sizes and devices (smartphones, tablets, or desktops).**
- **Interactive features like expandable forecasts or tappable weather icons for more details.**

6. **Visual Appeal:**
   - **Smooth animations for transitions (e.g., icons that subtly change with the weather).**
   - **A cohesive color scheme that reflects the weather conditions (e.g., sunny yellow, rainy blue, stormy gray).**
7. **Quick Location Search:**
   - **Prominently placed search bar for users to find locations instantly.**
8. **Real-Time Updates:**
   - **Dynamic content that refreshes to provide the latest weather information without manual intervention.**

**Dynamic Data Display:** Weather data is updated dynamically without needing to reload the page, using JavaScript to fetch new information.

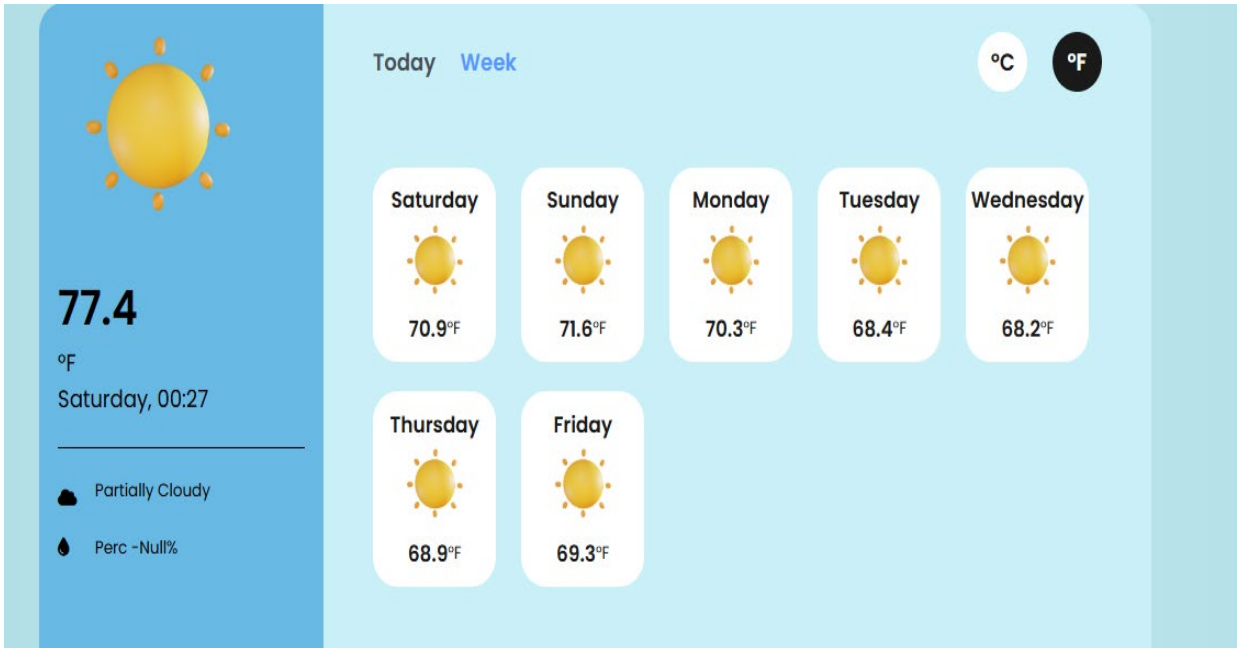
**Key Features of Dynamic Data Display:**

1. **Real-Time Updates**:
   - Weather information, such as temperature, wind speed, and air quality, updates automatically as new data becomes available.
   - Eliminates the need for manual refreshes, ensuring users always have the most accurate information.
2. **Asynchronous Fetching**:
   - Utilizes **AJAX (Asynchronous JavaScript and XML)** or modern APIs like **Fetch** or **Axios** to retrieve data from weather servers without disrupting the user experience.
   - Ensures smooth transitions when updating data elements.
3. **Seamless Integration**:
   - Only the relevant parts of the page (e.g., temperature display, forecast section) are updated, while the rest of the interface remains unchanged.
   - Improves efficiency by reducing bandwidth usage and page load times.
4. **Loading Indicators**:

- Subtle animations or loaders (e.g., spinning icons) indicate that new data is being fetched, providing a user-friendly experience.

5. **Event Triggers**:
   - Dynamic updates can be triggered by user actions like selecting a new location or automatically at set intervals (e.g., every 5 minutes).
6. **Error Handling**:
   - Displays fallback messages or alerts if there's an issue fetching data (e.g., "Unable to retrieve weather data. Please check your internet connection.").
7. **Enhanced User Experience**:
   - Delivers a fast, responsive app that feels modern and interactive, keeping users engaged without interruptions.

**Temperature Unit Toggle:** Option to toggle between Celsius and Fahrenheit for temperature display.



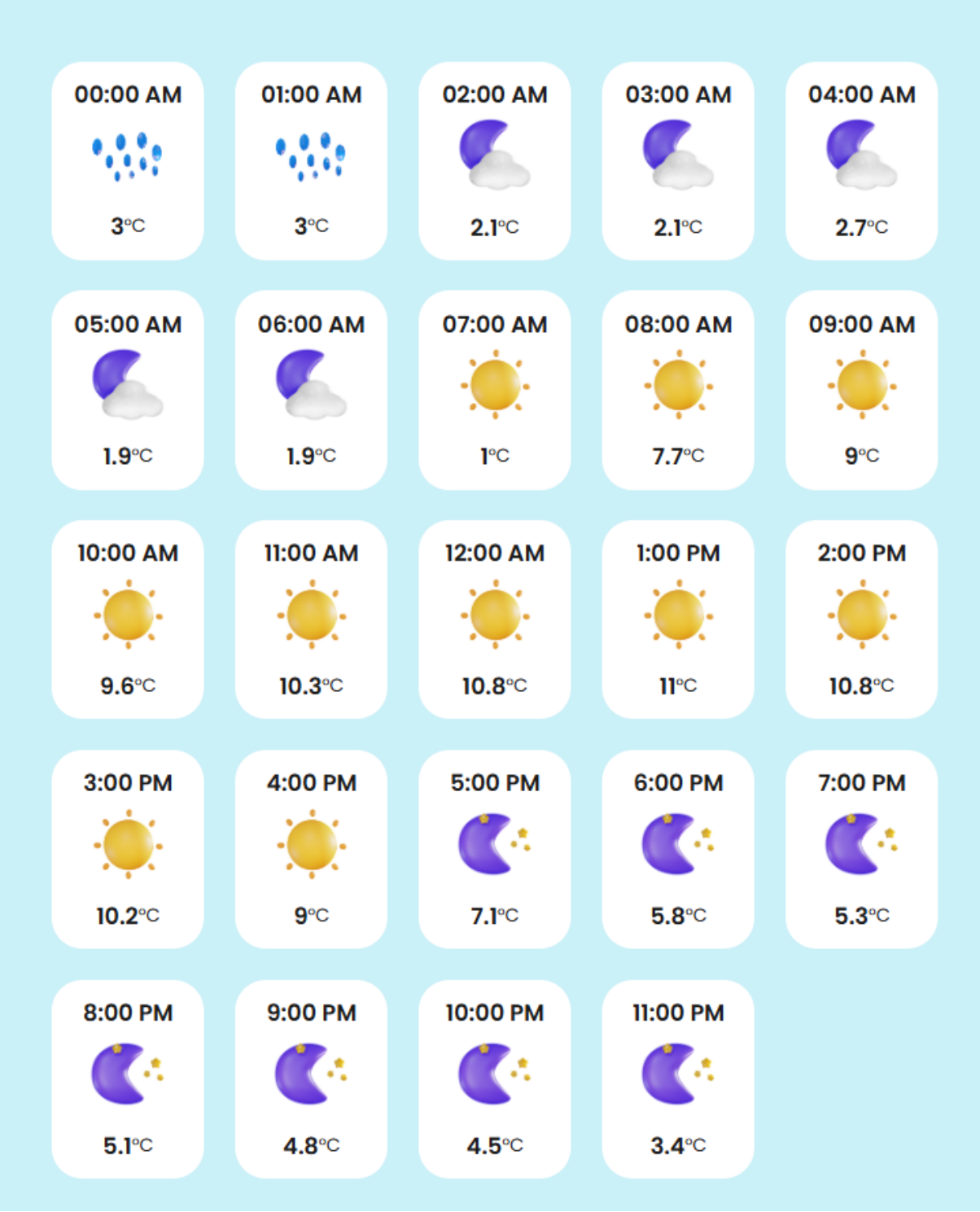

**Key Features:**

1. **Easy Accessibility:**
   - **A clearly visible toggle button, switch, or dropdown menu is provided in the app interface, often located in the settings menu or near the temperature display.**

- **Users can instantly change the unit without navigating through complex menus.**

2. **Real-Time Conversion:**
   - **The app dynamically recalculates and updates the displayed temperature values when the unit is changed.**
   - **Supports bidirectional switching:**
     - **Celsius to Fahrenheit: F=C×95+32F = C \times \frac{9}{5} + 32F=C×59+32**
     - **Fahrenheit to Celsius: C=(F−32)×59C = (F - 32) \times \frac{5}{9}C=(F−32)×95**
3. **Customization:**
   - **The user's choice of unit can be saved as a preference for future app sessions.**
4. **Global Relevance:**
   - **Accommodates users from different regions where one unit is more commonly used (e.g., Celsius in most countries, Fahrenheit in the U.S.).**
5. **Interactive Design:**
   - **Toggle switches with intuitive designs (e.g., sliders labeled "°C" and "°F" or buttons with unit icons) enhance the user experience.**
6. **Unit Synchronization:**
   - **When the temperature unit is changed, all relevant weather metrics (e.g., feels-like temperature or forecast data) are updated to ensure consistency across the app.**
7. **Optional Default Setting:**
   - **Users can opt to auto-detect the preferred unit based on their device settings or location.**

**Hourly Weather Data:** Provides detailed hourly weather forecasts for more specific planning.




## Key Features of Hourly Weather Data:

1. **Hourly Forecast**:

- Displays weather predictions for each hour of the day, typically covering the next 24-48 hours.
- Provides a comprehensive breakdown of conditions, including:
  - **Temperature**
  - **Weather conditions** (e.g., rain, clouds, clear skies)
  - **Wind status** (speed and direction)
  - **Precipitation chances** (in percentage)
  - **Humidity levels**

2. **Interactive Timeline**:
   - Users can scroll or swipe through the forecast timeline to view specific hours.
   - Visual indicators (e.g., graphs or icons) make it easy to understand trends over the day.
3. **Real-Time Updates**:
   - Forecast data is dynamically refreshed to provide the latest predictions as conditions evolve.
4. **Day and Night Views**:
   - Clear differentiation between daytime and nighttime hours using background themes or icons (e.g., sun for day, moon for night).
5. **Weather Alerts**:
   - Highlights specific hours with severe weather alerts (e.g., thunderstorms, heavy rain) for better preparedness.
6. **Personalization**:
   - Users can customize what data points they see (e.g., only temperature and precipitation or a full detailed view).
7. **Integrated Planning Assistance**:
   - Helps users schedule activities like commuting, outdoor events, or workouts by identifying the best hours for favorable weather

# PROJECT ADVANTAGES

## 1.Real-Time Data Access

- **Explanation:** The website fetches live weather data from external weather APIs ensuring that users always receive the most up-to-date and accurate weather conditions available. This feature is particularly important for users who rely on timely information for daily planning, travel decisions, or emergency situations.
- **Advantage:** Users can check the current weather and receive the most relevant information at any given moment, making the website a reliable resource for day-to-day weather updates.

## 2. Global Coverage

- **Explanation:** The website can display weather data for any city or location worldwide, thanks to the use of geolocation services and weather APIs. Whether the user is at home, traveling, or exploring remote areas, they can access weather information for any part of the world.
- **Advantage:** The global accessibility ensures the website serves users from different countries, making it versatile for a wide range of audiences. This can attract both local and international users, increasing the site's reach and usability.

## 3. User-Friendly Interface

- **Explanation:** The weather website is designed with a focus on simplicity and ease of use. The layout is clean and intuitive, with minimal distractions. Key weather details such as temperature, wind speed, and forecasts are prominently displayed, allowing users to quickly access the information they need.
- **Advantage:** A user-friendly interface improves engagement and accessibility, making the website suitable for users of all ages and technical abilities. It reduces friction for first-time visitors and makes regular use more efficient.

**4.Mobile-Responsive Design**

- **Explanation:** The website uses responsive web design principles, ensuring that it works seamlessly across different screen sizes, from small smartphones to large desktop monitors. This is achieved through CSS media queries and flexible grid layouts.
- **Advantage:** The responsive design ensures that users have a consistent and optimized experience, regardless of the device they are using. This is critical in today's mobile-first world, where a significant portion of web traffic comes from mobile devices.

**5. Customizable Temperature Units (Celsius/Fahrenheit)**

- **Explanation:** The website allows users to toggle between Celsius and Fahrenheit temperature units. This caters to the preferences of users from different parts of the world, as some countries primarily use the metric system (Celsius) while others use the imperial system (Fahrenheit).
- **Advantage:** Providing unit customization makes the website globally accessible and user-friendly, accommodating users with varying regional preferences and improving usability for a wider audience.

**6. Weather Forecasting**

- **Explanation:** In addition to displaying real-time weather data, the website provides extended weather forecasts. This includes information about expected temperature trends, rainfall, and other weather conditions.
- **Advantage:** Long-term forecasts help users plan activities or trips in advance, giving them the ability to make decisions based on predicted weather patterns. This feature enhances the website's value beyond just real-time updates.

**7. Interactive and Engaging**

- **Explanation**: The website utilizes dynamic elements such as weather icons (sunny, rainy, cloudy) and real-time data updates to create an engaging user experience. The use of visually appealing elements helps users quickly understand weather conditions at a glance.

**8. Easy Integration with APIs**

- **Explanation:** The weather website integrates with third-party weather services through simple API calls to retrieve weather data. These APIs offer comprehensive data, including current conditions, forecasts, and weather-related statistics.
- **Advantage:** By using well-established APIs, the website avoids the complexity of developing a custom weather data solution while still providing accurate and reliable information. It also ensures that the website can be easily scaled or updated as the API service evolves.

**11. Scalable for Future Features**

- **Explanation:** The website's architecture is built to be modular and scalable, meaning new features can be added in the future without requiring a complete redesign. For example, features like user accounts, location-based weather alerts, or detailed weather charts could be added as the project grows.
- **Advantage:** Scalability ensures the long-term viability of the project. As user demands evolve, the website can grow and adapt by adding more sophisticated features, ensuring that it remains competitive and meets the needs of a broader audience.

**12. Improved Accessibility**

- **Explanation:** The weather website follows web accessibility standards (WCAG), ensuring that users with disabilities can easily navigate and use the site. This includes high-contrast design, screen reader support, and keyboard navigation options.
- **Advantage:** Accessibility broadens the potential user base and ensures the website can be used by people with varying abilities, improving inclusivity and making the site compliant with legal or ethical standards in some regions.

**Conclusion**

These advantages combine to make your weather website a robust, accessible, and engaging tool for users seeking accurate, real-time weather information. The focus on simplicity, and global usability ensures that it can meet the needs of a diverse audience, while its modular design offers flexibility for future enhancements.

# BONUS FEATURES

## 1.Visibility

- **Description**: The Visibility feature provides users with real-time data on how far they can see in the current weather conditions. This value is often measured in kilometres or miles and is crucial for understanding how foggy, rainy, or hazy it is in a particular location. Visibility can be affected by weather phenomena such as fog, rain, snow, or smoke, and it plays an important role in travel and outdoor activities.

- **Use Case:**
    - **Travel & Navigation:** For individuals planning to drive, fly, or navigate outdoor routes, visibility data can help them assess potential risks and make informed decisions.
    - **Safety:** In hazardous weather conditions (like heavy fog or intense rain), reduced visibility can affect safety, so this feature helps users plan accordingly.

- **Advantage:** By adding visibility data, users get a more comprehensive understanding of their environment, allowing them to make safer and better-informed decisions.

## 2. Air Quality Index (AQI)

- **Description:** The **Air Quality Index (AQI)** feature measures the level of air pollution and provides an easy-to-understand scale indicating the quality of air in a given location. The AQI is typically categorized into levels such as "Good," "Moderate," "Unhealthy," and "Hazardous." This feature gives users important information about the presence of pollutants like PM2.5 (particulate matter), ozone, carbon monoxide, and sulphur dioxide in the air.
- **Use Case:**
    - **Health Monitoring:** People with respiratory conditions (like asthma or COPD) can use AQI data to avoid outdoor activities when air quality is poor.
    - **Environment Awareness:** The feature raises awareness of pollution levels, helping users make environmentally conscious decisions and take precautions during high-pollution periods.
- **Advantage:** Including AQI data enhances the website's value by offering information that goes beyond just the weather conditions. It supports health and environmental awareness, helping users take proactive measures against pollution and its health risks.

**3. Weather News**

- **Description:** The **Weather News** feature provides users with the latest updates and breaking news about significant weather events, such as hurricanes, storms, heatwaves, or unusual weather patterns occurring in various parts of the world. This feature aggregates news articles, emergency alerts, and weather-related reports, keeping users informed about global or local weather events that may affect them.
- **Use Case:**
    - **Emergency Alerts:** Users can stay informed about severe weather conditions (e.g., hurricanes, tornadoes, or floods) and prepare for potential emergencies.
    - **General Awareness:** Provides educational content about unusual weather events, climate changes, or important weather phenomena happening around the world.
- **Advantage:** The Weather News feature enriches the user experience by offering timely updates on major weather events. It keeps users informed not only about current conditions but also about weather-related occurrences and disasters, improving public awareness and preparedness.

**Summary of Bonus Features:**

1. **Visibility** – Provides real-time data on how far users can see in various weather conditions, enhancing travel safety and environmental awareness.
2. **Air Quality Index (AQI)** – Displays air pollution levels, helping users monitor their health, particularly those with respiratory conditions, and promoting environmental consciousness.
3. **Weather News** – Offers up-to-date weather-related news, alerts, and reports, keeping users informed about severe weather events and climate trends, ensuring they stay prepared.

These bonus features make the weather website more comprehensive and useful, offering users not only weather data but also valuable information on air quality and global weather events. This ensures that your website stands out by addressing broader environmental and safety concerns, increasing its relevance and engagement.

# FINAL RESULTS OF PROJECTS


**EXPLANATION: -**

**Description:**

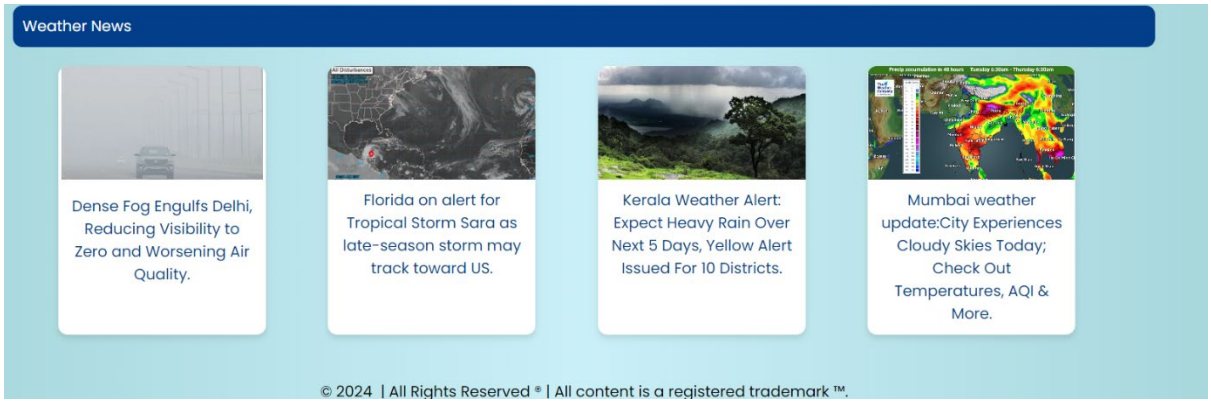
The navbar with a weather search bar is an essential component of your weather website's user interface (UI). It is typically placed at the top of the page for easy access, allowing users to search for weather data by typing the name of a city or location.

**Functionality:**

- **Search for Locations:** The search bar allows users to input a city name, zip code, or even a specific place (e.g., landmarks) to retrieve weather data for that area. Once the user types a location and presses Enter or clicks the Search button, the website dynamically fetches weather information (temperature, humidity, wind speed, etc.) for that location using an API
- **Responsive**: The navbar and search bar are designed to be **responsive**, meaning they adapt to different screen sizes (desktop, tablet, mobile).

**Key Features of the Navbar with Search Bar:**

1. **Search Field**:
    - The user can type a city name or place to search for weather data.
    - Displays placeholder text (e.g., "Enter city name") to guide the user.
2. **Search Button**:
    - A button or icon (like a magnifying glass) that triggers the search.
    - Clicking this button initiates the weather API request for the entered location.




The **Weather News Cards** are a visually appealing and efficient way to display weather-related news articles or alerts on your website. These cards act as clickable elements that present short, digestible summaries of weather news, such as **severe weather warnings**, **storm updates**, or general weather-related articles. They are designed to give users a quick snapshot of current weather events and allow them to explore more detailed information with a simple click.

**Functionality:**

1. **Card Layout**:

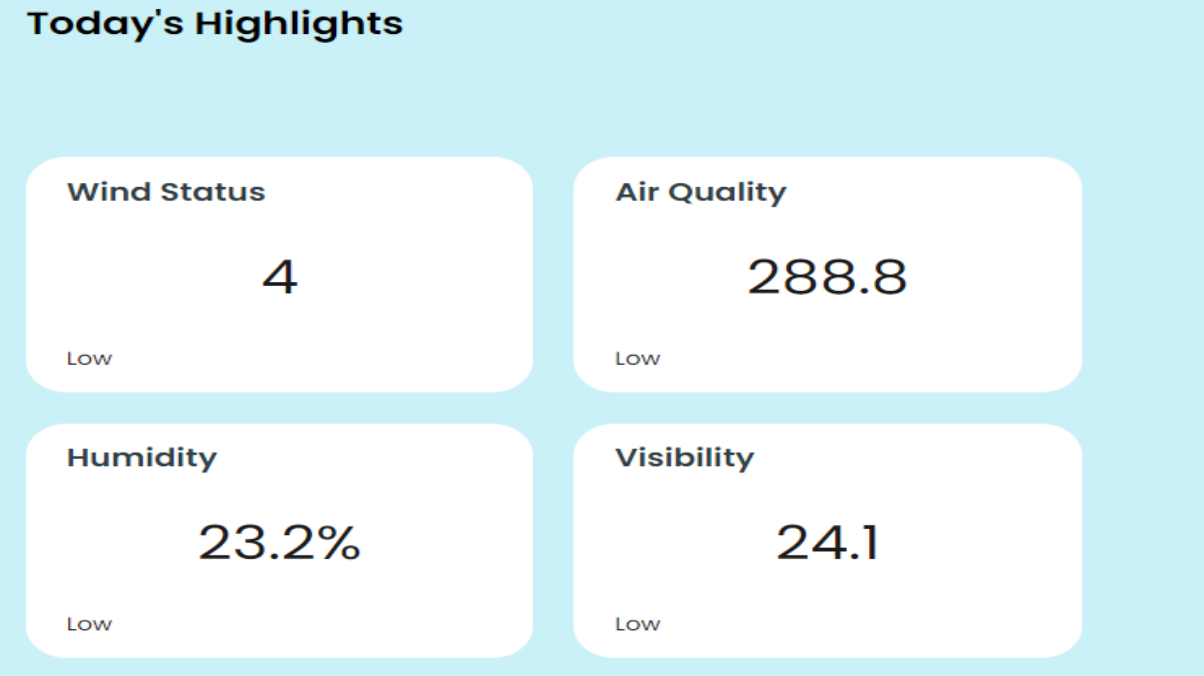
- Each weather news item is presented as a **card** that typically includes the following elements:
- **Short Description**: A brief summary or preview of the article's content, offering a few key details (e.g., "The latest forecast shows that Hurricane XYZ will hit the Florida coast tomorrow...").
- **Image or Icon**: A relevant thumbnail or image representing the weather event, such as a storm cloud, hurricane icon, or radar image.
- **Source**: The news outlet or meteorological agency providing the report, adding credibility.

2. **Clickable for More Details**:

- When the user clicks on a card, they are redirected to the **full article** or **detailed news page**. This could be an external link (from a trusted news source) .

**Key Features of Weather News Cards:**

- Weather news cards are designed to capture attention through the use of **images**, **icons**, and **headlines**. The visual elements help users quickly understand the nature of the event.




**Wind Status:**

- **Description**: Displays the current **wind speed** (e.g., in km/h or mph). This data is crucial for outdoor activities like sailing, hiking, or cycling. The wind status also indicates whether the wind is calm, breezy, or strong, providing users with important insights into weather conditions.

**Air Quality Index (AQI):**

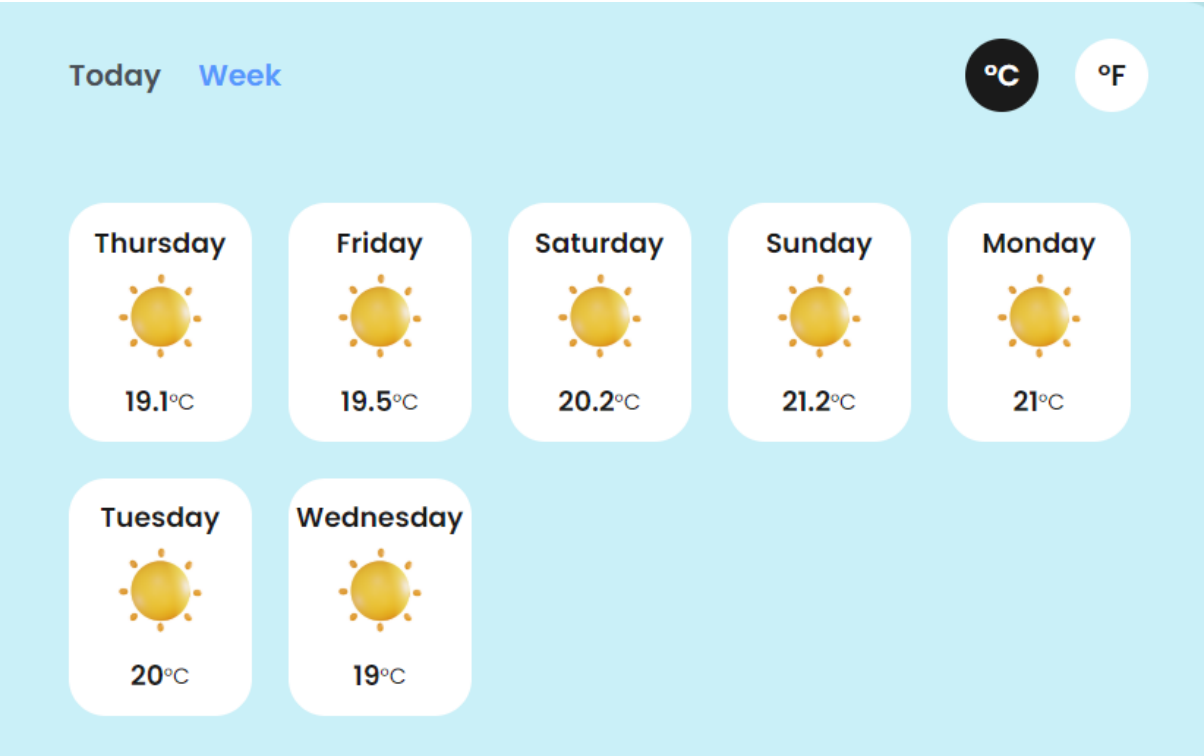
- **Description**: Shows the **air quality** in the user's location, typically represented by an index (e.g., 0–50 for good, 51–100 for moderate, and so on). The AQI provides important information about pollution levels, helping users understand the potential health risks due to air pollution, especially in urban areas or during smog episodes.

**Humidity:**

- **Description**: Displays the **current humidity level** as a percentage, indicating how much moisture is in the air. High humidity can make the air feel warmer, while low humidity can feel drier. This data helps users plan for their comfort and dress accordingly, particularly in hot or cold weather.

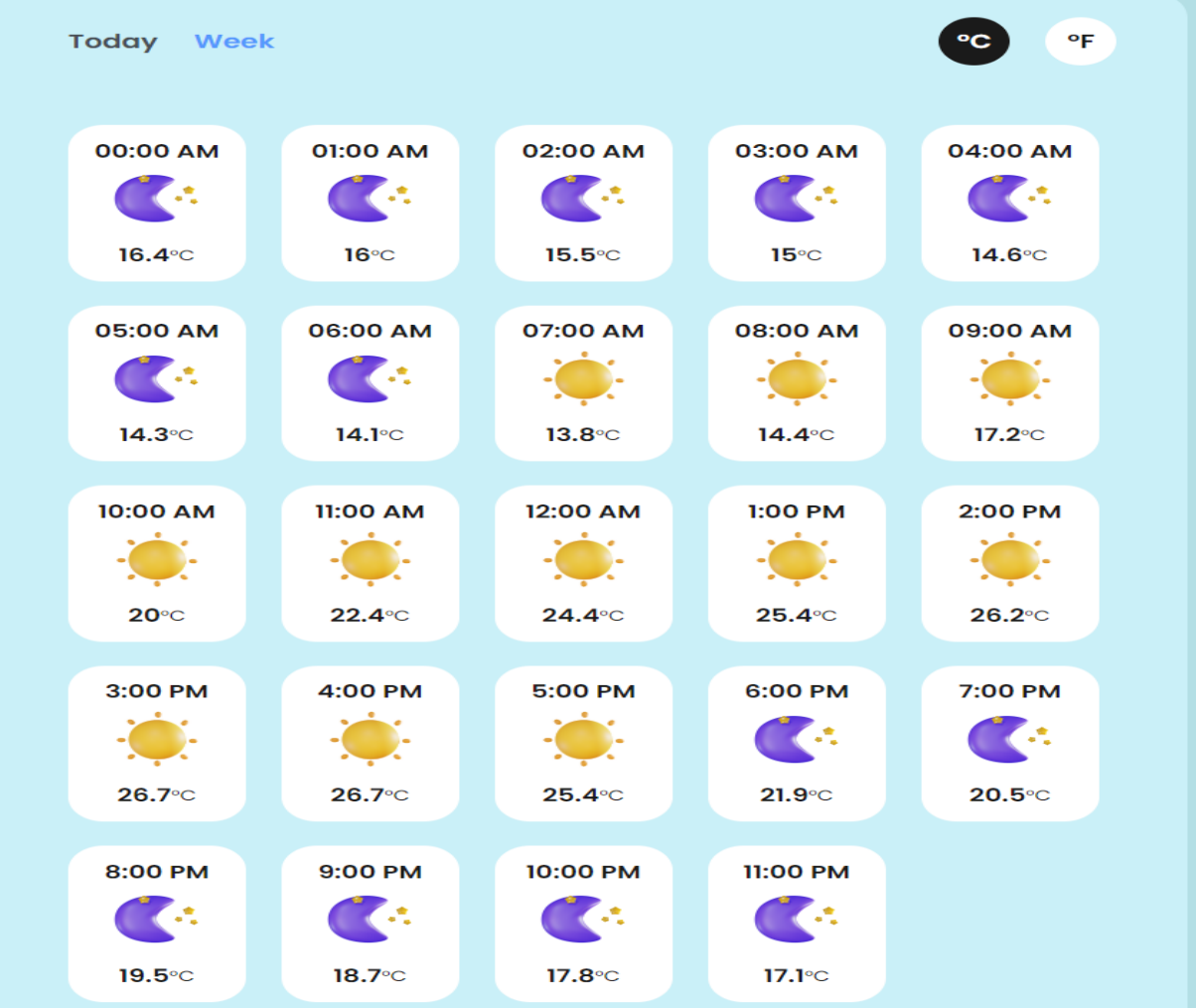
**Visibility:**

- **Description**: Represents how far one can see outdoors, typically measured in kilometres or miles. This value can be affected by weather conditions like **fog**, **rain**, or **snow**, and it's important for users to know visibility levels, especially if they're traveling or engaging in outdoor activities.




- **Description**: The **weekly weather details** feature provides a **7-day weather forecast** for the user's location (or a specified city). It includes key weather information such as:
    - **Daily temperature**: Shows average temperatures for each day of the week.
    - **Weather conditions**: Displays the overall weather description for each day (e.g., sunny, cloudy, rainy, stormy).
    - **Precipitation forecast**: Indicates if there will be rain or snow for any day of the week.

These details are fetched from the weather API and presented in an easy-to-read format, allowing users to plan their week based on the upcoming weather conditions.




- **Description**: The **hourly weather update** provides a detailed forecast for the next 24 hours, showing **hour-by-hour** changes in key weather conditions, such as:
    - **Temperature**: Displays the expected temperature for each hour of the day.
    - **Weather conditions**: Provides an overview of the weather (e.g., sunny, cloudy, rainy) for each hour.
    - **Precipitation**: Shows the likelihood of rain or snow, helping users prepare for wet weather.
    - **Wind speed and direction**: Provides information on wind intensity throughout the day.
    - **Humidity levels**: Shows the expected humidity at each hour, helping users gauge comfort and plan for activities.

This feature allows users to track how weather conditions will evolve throughout the day, providing them with **real-time, localized data** to help plan their activities more effectively.


Weather
Search...
Today
Week
°C
°F
25.1
°C
Thursday, 01:05
Clear
Perc - 0%
Thursday
19.2°C
Friday
19.4°C
Saturday
20.2°C
Sunday
21°C
Monday
20.9°C
Tuesday
19.9°C
Wednesday
19°C
Today's Highlights
Wind Status
8.3
Low
Air Quality
298.4
Low
Humidity
21.54%
Low
Visibility
24.1
Low
Ambala, Haryana, India
Weather News
Dense Fog Engulfs Delhi, Reducing Visibility to Zero and Worsening Air Quality.
Florida on alert for Tropical Storm Sara as late-season storm may track toward US.
Kerala Weather Alert: Expect Heavy Rain Over Next 5 Days, Yellow Alert Issued For 10 Districts.
Mumbai weather update:City Experiences Cloudy Skies Today; Check Out Temperatures, AQI & More.
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# CONCLUSION

The weather website project successfully addresses the growing need for **accurate, real-time weather information** while enhancing user experience through features like **real-time data, extended forecasts**, and **bonus features** (visibility, AQI, weather news, etc.). The responsive design and easy-to-navigate interface ensure that users across different devices can access the information they need quickly and efficiently. This project not only meets the basic requirements of weather forecasting but also adds valuable elements, such as **air quality updates** and **weather alerts**, that help users make informed decisions about their health, safety, and outdoor activities.

The inclusion of **bonus features** like wind status, customizable dashboards, and weather maps enhances the website's value, making it a comprehensive tool for both casual users and those who need detailed, specific weather information for planning. Overall, this project demonstrates the integration of modern **frontend technologies** to create an intuitive, feature-rich weather platform.

## Future Scope

The future development of the weather website holds numerous opportunities for enhancing functionality and expanding user engagement. Below are some potential features and improvements for future versions of the website:

1. **User Accounts and Personalization**:
    - **Feature**: Allow users to create accounts and save **favourite locations**, **custom weather preferences**, and **alert settings**.
    - **Benefit**: This will offer a more personalized experience and let users quickly access weather data relevant to their daily needs.
2. **Advanced Data Visualizations**:
    - **Feature**: Implement interactive **charts and graphs** for weather trends over time (e.g., temperature fluctuations, humidity levels, wind patterns).
    - **Benefit**: Users can make more data-driven decisions and gain deeper insights into long-term weather trends, useful for farmers, travellers, and weather enthusiasts.
3. **Climate Change and Environmental Impact Insights**:
    - **Feature**: Add data visualizations and information related to **climate change** and long-term environmental trends, such as rising sea levels or extreme weather events.

# REFRENCES USED

**1.API's:** https://weather.visualcrossing.com/VisualCrossingWebServices/rest/services/timeline/${city}?unitGroup=metric&key=${apiKey}&contentType=json

## 2. Frontend Technologies

- HTML5 Documentation: https://developer.mozilla.org/en-US/docs/Web/HTML
- CSS3 Documentation: https://developer.mozilla.org/en-US/docs/Web/CSS
- JavaScript Documentation: https://developer.mozilla.org/en-US/docs/Web/JavaScript
- Bootstrap Framework: https://getbootstrap.com/

## 3. Deployment and Hosting

- GitHub Pages: https://pages.github.com/

## 4. Others

- Icons and Visuals:
- Font Awesome: https://fontawesome.com/
- Weather Icons: https://erikflowers.github.io/weather-icons/
- MDN REFERENCE: https://developer.mozilla.org/
- GEEKSFORGEEKS: https://www.geeksforgeeks.org/