⛅ Weather Dashboard — Full Assessment Brief

🧠 Objective:

Create a **Weather Dashboard** that allows users to:

- Search for any city.
- View **current weather** conditions.
- See a **5-day forecast**.
- Experience a responsive, mobile-friendly, and attractive UI styled using **Tailwind CSS**.

🔧 Technologies to Use:

- **HTML** – semantic and accessible structure
- **Tailwind CSS** – layout, utility-first styling, responsiveness
- **JavaScript (Vanilla)** – API calls, DOM manipulation, interactivity
- **OpenWeatherMap API** – weather data source

  (Use the free tier: https://openweathermap.org/api)

📌 Required Features

🔍 1. City Search

- User can enter a city name and submit the search.
- Hitting Enter or clicking "Search" should trigger the fetch.

🌦 2. Current Weather Display

- Show:
  - City name
  - Current temperature (in Celsius or Fahrenheit)
  - Weather condition (e.g., Rain, Sunny)
  - Weather icon
  - Humidity %
  - Wind speed
  - Date/time (formatted)

📅 3. 5-Day Forecast

- Display weather cards for the next 5 days.
- Each card includes:
  - Date
  - Weather icon
  - High/low temperature
  - Summary (e.g., "Partly Cloudy")

🔄 4. Persistent City Search

- Maintain a search history list of previously searched cities (stored in localStorage).
- Clicking a city from the list triggers the search again.

🧱 Suggested UI Layout (flex/grid with Tailwind):

```
[ Search Bar        ]
[ Recent Searches   ]

[ Current Weather Card ]
[ 5-Day Forecast Grid  ]
```

⚠️ Error Handling

- Display a user-friendly error if:
  - The city is not found
  - Network issues occur
  - API rate limits are hit

Use Tailwind alert banners or modals for this.

🎨 Design Guidelines

- Use **Tailwind** for spacing, layout, typography, and colors.
- Make sure it's **fully responsive**:
  - Mobile-first design
  - Flexbox/grid layout for the forecast cards
- Optional: Add dark mode toggle

💡 Bonus Features (Optional)

- Toggle between °C / °F
- Auto-detect user's location via Geolocation API
- Show "feels like" temperature
- Animate forecast cards or background depending on weather condition
- Use localStorage to remember last city searched on page reload

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Expense Tracker

Level: Intermediate – Advanced

Focus: State management + data handling + UI feedback

Task:

- User can add income and expenses, which get reflected in a balance.
- Filter by categories, dates.
- Store data in localStorage.

Bonus:

- Charts using a lightweight JS library (or custom bar chart)
- Monthly summary

Key Skills:

- JavaScript arrays/objects
- Filtering/sorting logic
- Tailwind card layouts and dashboards