AI-Supported Weather App Submission

**Project Summary of Weather App**

**What My App Does:**

My Weather App allows users to view a 5-day weather forecast for any city they enter. When the user types in a city name and clicks the “Get Forecast” button, the app uses the Open-Meteo Geocoding API to find the city's coordinates. It then requests a 5-day forecast from the Open-Meteo Forecast API, displaying daily high/low temperatures and wind speed in a clean card format.

**App Features (with Screenshots):**



My Weather App includes the following features:

* A search bar for entering a city name
* A button to fetch the 5-day weather forecast
* A display section showing:  
   - Max & Min temperature in Celsius  
   - Wind speed (km/h)  
   - Day/date of the forecast
* Visual cards for each day
* Clear messages for invalid cities or API errors
* Error handling for no data or network failure
* (Optional) Caching system to store results for 1 hour

Screenshot 2: City entered – “Berlin”



5-day forecast cards displayed with daily weather

**How I Used AI:**

AI tools helped me:  
- Plan my API structure and modularize the code  
- Create helper functions and add meaningful docstrings  
- Generate a test file for verifying core functions  
- Write better CSS for responsive layout  
- Reflect on ethics, security, and licensing of API use  
  
I reviewed and refined each AI-generated suggestion to make sure it matched my understanding and the project goals.

**What I Learned and What Was Challenging:**

I learned how to:  
- Use two connected APIs (geocoding + forecast)  
- Structure code to run only after both steps succeed  
- Cache API results to optimize performance  
- Write and organize CSS for better user experience  
- Write and use test cases with Jest  
  
Challenges:  
Handling multi-day forecasts required restructuring the UI and adjusting data mapping in JavaScript. I also had to ensure accessibility and mobile-friendliness.

**One Thing I Am Proud Of:**

I’m proud that the app now supports a 5-day forecast, uses clean layout cards, and handles errors gracefully. It’s user-friendly and ready to expand with future features.

**One Thing I Would Improve:**

With more time, I would:  
- Add real weather icons based on weather codes  
- Save recent city searches  
- Add a toggle for Fahrenheit/Celsius  
- Package the app for desktop/mobile using Electron or Capacitor