Course project documentation

Weather app

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CT30A2910 – Introduction to Web Programming

In this project I have used Claude and ChatGPT to help me solve some issues. For example with the getWeatherIcon function I used for the site: https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Array/includes, and then asked Claude if I implemented this correctly. Some of the css elements are from AI and websites like w3schools, since I am not good with designing a pretty website.

This program can fetch data for the user based on the city that the user provides (1 point), or by pressing the "weather for my location" button, which gets the user's coordinates with geolocation (2 points). The user can also display the data in Celsius, Kelvin or Fahrenheit (2 points), but it must be done before the user searches for a location. I got help from https://developer.mozilla.org/en-US/docs/Web/API/Geolocation/getCurrentPosition for the geolocation. The app is somewhat responsive, since the cards fall into multiple rows as the screen size gets smaller, although it's not pretty just like the whole site (4 points). The application worked on multiple browsers for me (3 points). The application is organized somewhat well and js, html and css are all on different files (2 points).

When the user searches for the weather, the program fetches data from 3 different API (5 points). First one is Open Meteo, and it provides us the main data, for example for the 24-hour forecast (3 points). Second one is openweathermap, which provides us the coordinates for the user's location and also the city name, if the user gets weather with geolocation. Third one is weatherapi, which provides data for the 7-day forecast cards (3 points) and the icons/pictures for each day, which I noticed and decided to use them. The other icons in the program are from Font Awesome (3 points). The graph at the bottom of the page was done with chart.js, but I didn't get it to work properly. For example the labels on the x-axis are very weird and they could be trimmed and somehow displayed as "Mon, Tue…", but I didn't completely understand it. The user can still see two types of data: temperature and rain. (2 points).

Based on these features, I calculated that this project should be worth around 30 points, the -10% included. I would still be happy, as long as this project gets more than 20 points.

How to date => weekday https://www.30secondsofcode.org/js/s/weekday-name/

I got the weather codes for the icons from here:

WMO Weather interpretation codes (WW)

Code	Description
0	Clear sky
1, 2, 3	Mainly clear, partly cloudy, and overcast
45, 48	Fog and depositing rime fog
51, 53, 55	Drizzle: Light, moderate, and dense intensity
56, 57	Freezing Drizzle: Light and dense intensity
61, 63, 65	Rain: Slight, moderate and heavy intensity
66, 67	Freezing Rain: Light and heavy intensity
71, 73, 75	Snow fall: Slight, moderate, and heavy intensity
77	Snow grains
80, 81, 82	Rain showers: Slight, moderate, and violent
85, 86	Snow showers slight and heavy
95 *	Thunderstorm: Slight or moderate
96, 99 *	Thunderstorm with slight and heavy hail