

Project 2: Weather app, Documentation

Tools/API-sources

Html, js, css

Editor: visual studio code

Version control: Github repository: KatjaRos/projectwork

Used Geeks for geeks Build a weatherapp page to give me a starting point for the body and API codes: [Build A Weather App in HTML CSS & JavaScript - GeeksforGeeks](#)

Used [Current weather data - OpenWeatherMap](#)

Used [HTML Geolocation API](#) to get help with the geolocation api

Used Meteoblue forecast API for the 7-day forecast: [Forecast Data | Technical Documentation](#)

Downloaded weather icons from Meteoblue too.

 [Free Open-Source Weather API | Open-Meteo.com](#) OpenMeteo for 24 hour weather

Watched

videos: https://www.youtube.com/watch?v=HS7GfTuJgA8&embeds_referring_euri=https%3A%2F%2Fwww.bing.com%2F&embeds_referring_origin=https%3A%2F%2Fwww.bing.com&source_ve_path=Mjg2NjY

<https://www.youtube.com/watch?v=f0U8PP6Kf4c>

index.html contains:

- `<div class="top-bar">` – Header and search input.
- `<div class="weather-out-current">` – Current weather info:
 - `<h3>` for location
 - `<p>` elements for temperature, wind, and description

- `` for weather icon
- `<div class="hourly-weather">` –24-hour forecast:
 - `<h3>` title
 - `<ul id="hourly-list">` for hourlyforecast blocks
- `<div class="weather-out-future">` – 7-day forecast:
 - `<h3>` title
 - `<ul id="items-list">` for daily forecast blocks
 - `<div id="meteogram-container">` with `` for graphical forecast

AI Assistance

- Used **ChatGPT** to:
 - Debug missing `src=""` attribute in the `` tag for weather icons.
 - Understand how **callback functions** work in JavaScript.
 - Explore alternatives for geolocation APIs (result: browser's built-in API is best).
 - Get ideas for how to implement icons for the 7-day forecast when Meteoblue didn't provide them directly/documentation was messy so it took me a while to locate the weather icons
 - get help on how to open the app in my mobile device
- Used **Microsoft Copilot** to:
 - Review and improve the structure and clarity of this documentation.

Implemented features:

Feature	Max points
User can search for locations	1
User can use his/her location GPS-coordinates (Geolocation API)	2

At least two data/forecast providers are used (this means completely different data sources like x.com and y.com, not just different API endpoints on same service)	3
At least three data/forecast providers are used	2
User sees the current weather at a specific location	1
User sees the forecast for the next 24 hour, hourly based	3
User sees the forecast for the next 7 days	3
All the weather forecast elements uses icons (and numbers) for e.g. sunny and cloudy weathers -> the hourly blocks don,t but 7-day forecast and current weather does so	3=1.5
The look and feel of the application reflects the current weather (e.g. it is blueish, when it is cold; reddish, when it is hot;; dark, when it is night...)	2
User sees simultaneously two forecast in a graph, e.g. there is temperature forecast for the next 24 hours and there are two lines telling how the data sources are providing (a bit) different data	3
User has the option to tag some locations as her favorites and thus access them from the favorites menu	2
User has an option to switch between celsius and fahrenheit degrees and kelvins	2
Feature	Max points
Well written PDF report	3
No report	-30
Application is responsive and can be used on both desktop and mobile environment	4
Application is not responsive	-2
Application works on Firefox, Safari, Edge and Chrome	3
The application has clear directory structure and everything is organized well	2

Application does not work	-30
CSS, JavaScript and HTML are all in the same file	-5
Inappropriate content, including hate speech -related memes and other trash	-100
Weather icons are dynamically selected based on day/night status and pictocode using a local icon set. This improves visual clarity and avoids dependency on external icon URLs.	2
Included a dynamically generated meteogram from Meteoblue with the 7-day-forecast to better visualize weather changes and for example precipitation and wind speed	2
Total points	31.5

Time consumption

Building the application.js and css: approx 30 hr

Writing the documentation: approx 0.75 hr