

## Project Description

- This project is part of 'build up' work towards a extended version of **Weather Station** Project.
- It lets user to ask for actual temperature in a pre-selected city/location (Cologne, Germany).
- The user will be provided with an UI window, where he/she can click a button to get the up to date information on current temperature.
- The code uses API servies from <https://open-meteo.com/>
- Received information is filtered to collect only the required data (time & temperature).
- API Received '**daily forecast**' data is saved to JSON file in local directory.
- If user makes another request (Button click), inside of a specified time gap (here set to 60 minutes), no new API request is generated. Displayed temperature data will be updated with next temperature value, if the current time crosses 30 minute mark between two consecutive hours.

API URL ([Open in new tab](#) or copy this URL into your application).

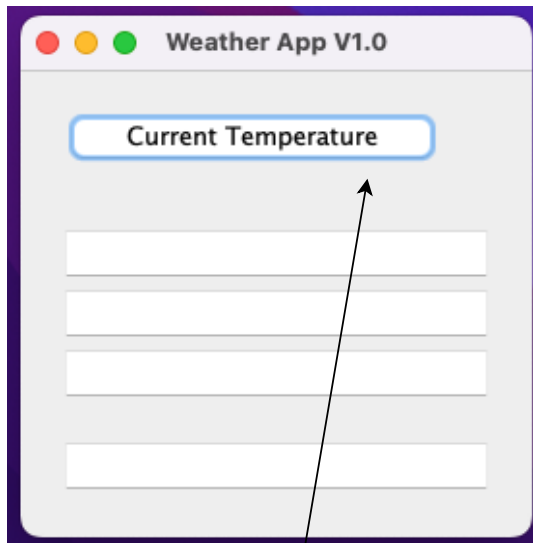
```
https://api.open-meteo.com/v1/forecast?latitude=50.9333&longitude=6.95&hourly=temperature_2m&forecast_days=1
```

## JSON Return Object

On success a JSON object will be returned.

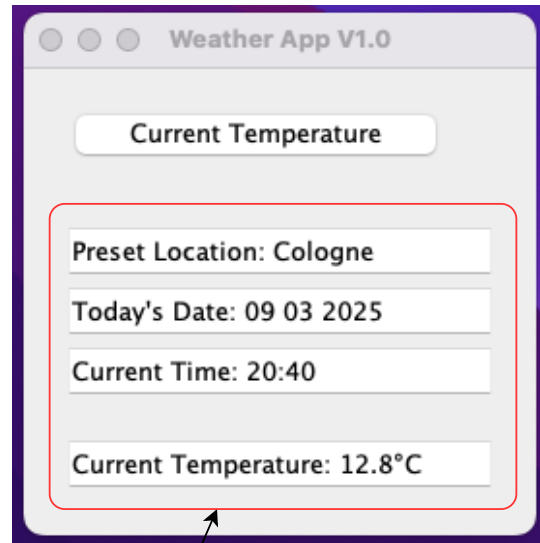
```
"latitude": 52.52,
"longitude": 13.419,
"elevation": 44.812,
"generationtime_ms": 2.2119,
"utc_offset_seconds": 0,
"timezone": "Europe/Berlin",
"timezone_abbreviation": "CEST",
"hourly": {
  "time": ["2022-07-01T00:00", "2022-07-01T01:00", "2022-07-01T02:00", ...],
  "temperature_2m": [13, 12.7, 12.7, 12.5, 12.5, 12.8, 13, 12.9, 13.3, ...]
},
"hourly_units": {
  "temperature_2m": "°C"
}
```

## UI - Guide

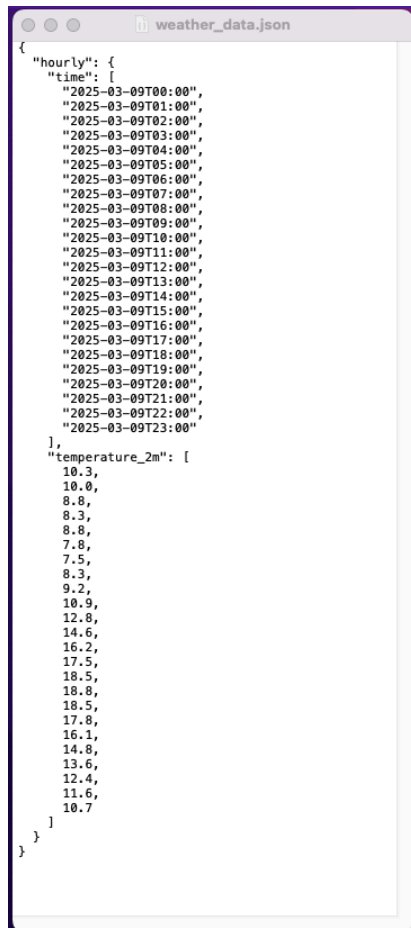


UI - Initial Status

Click Button to initiate to  
findout Weather Report  
(Temperature)



Weather App output

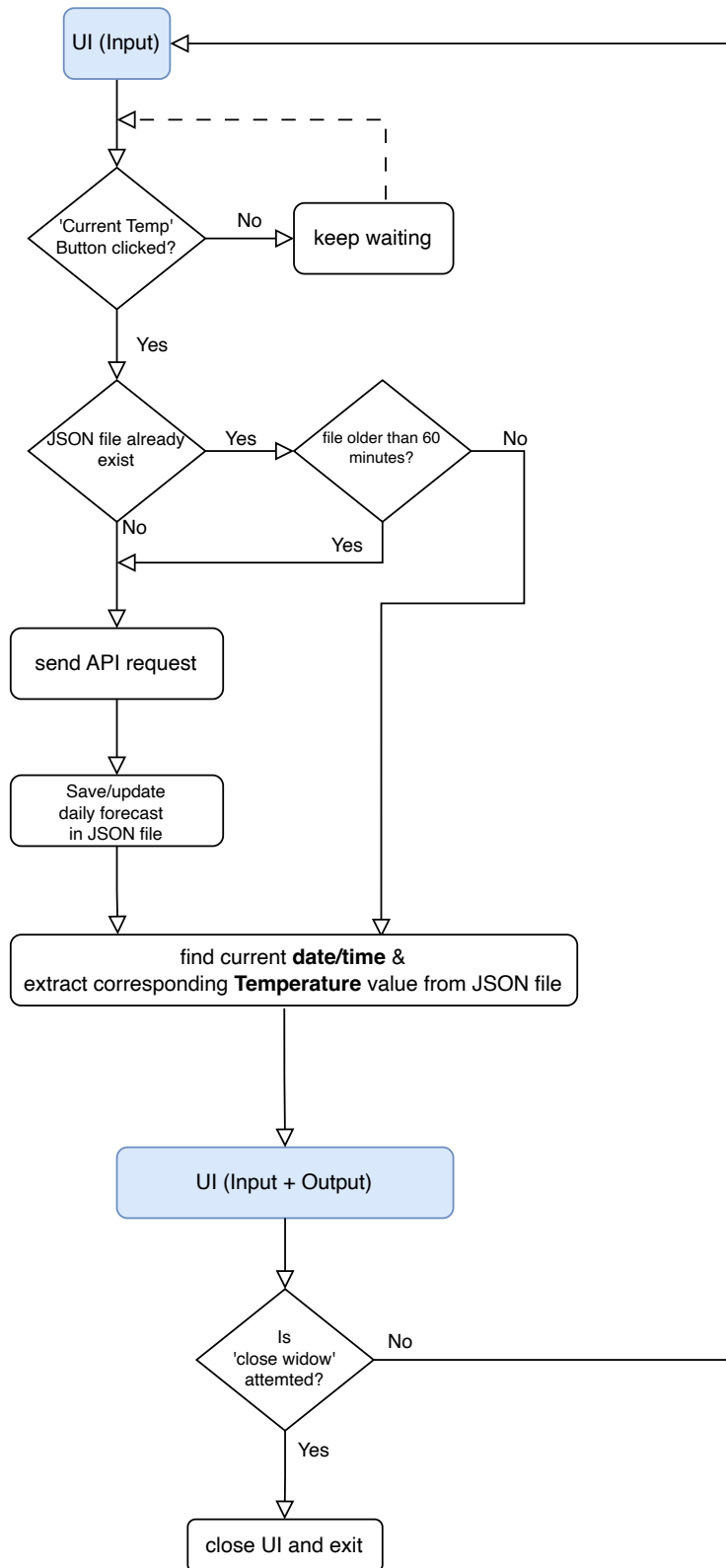


API Received 'daily forecast'  
data is saved to JSON file in  
local dir.

If user makes another  
request (Button click),  
inside of a specified time  
gap (here set to 60  
minutes), no new API  
request is generated.

```
-----  
JSON File exists, and was saved 13 minutes ago.  
File is not older than 60 minutes. So, no need to call the API.  
-----
```

## FlowChart



## ClassDiagram

