Project spec

Vignettes

1. *Find out the hourly temperature and humidity*

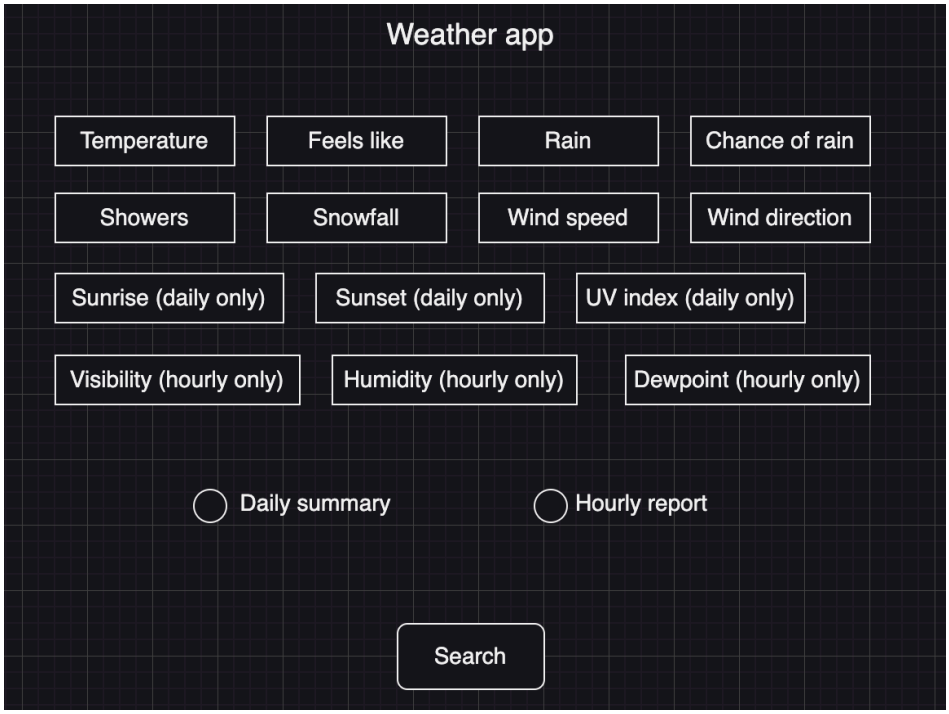
The user tells the GUI that they want to know the temp and humidity on an hourly basis. In turn, they get a plot documenting those variables over 24 hours. If they hover over a point, they can see the exact value.

- The app establishes the scope (location, units of measurement and temp & humidity hourly vars) and assigns them to a single “params” variable.
- The “params” variable is sent to Open Meteo API and in return we get a data object.
- Next, a function processes the variable(s) inputted and feeds them into a dictionary and array. The keys (e.g. temperature, humidity, etc.) go into the dictionary. The values go into an array via a for loop.
- Once established, the dictionary and array are fed into a dataframe.
- Last, the dataframe is turned into a plot.

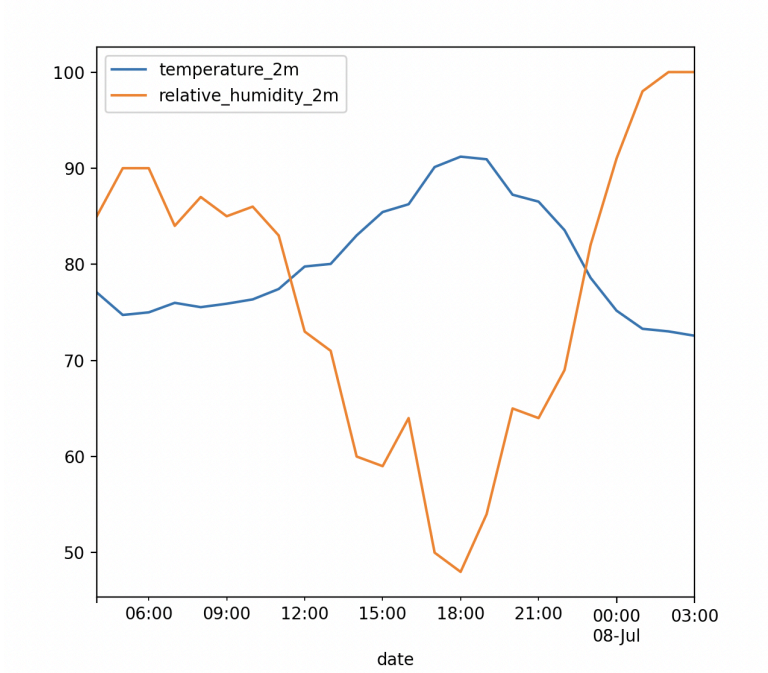
2. *Find of the hourly and daily visibility*

The user tells the GUI that they want to know the visibility on an hourly and daily basis. In turn, they get 2 plots documenting those variables over 24 hours and 7 days. If they hover over a point, they can see the exact value.

- The app establishes the scope (location, units of measurement and visibility hourly & daily vars) and assigns them to a single “params” variable.
- The “params” variable is sent to Open Meteo API and in return we get a data object.
- Next, a function processes the variable(s) inputted and feeds them into a separate dictionary and separate array. The hourly and dailykeys go into the dictionaries. Their values go into arrays via a for loop.
- Once established, the dictionary and array are fed into a dataframe.
- Last, the dataframes are turned into a plot.



Wireframe of the GUI users will interact with. Users can choose from a number of variables, then tell the app if they want a daily summary, hourly report or both. To see the results, the user clicks “Search.”



An idea of what the plot for the first vignette would look like.