PNUAIRNOW:
AIR QUALITY DASHBOARD

201924451 Kim Taehun

About the project...

- Using HTML, CSS and JS

- Create a responsive web application to monitor and display real-time air quality data

- Including temperature, feelslike temperature, humidity, wind

- PM2.5, PM10, CO, O3, NO2, SO2

- Visualize trends for temperature and humidity over time

- Represent the distribution of various pollutants using Bar charts and Doughnut chart

- Implement color coding to indicate air quality levels
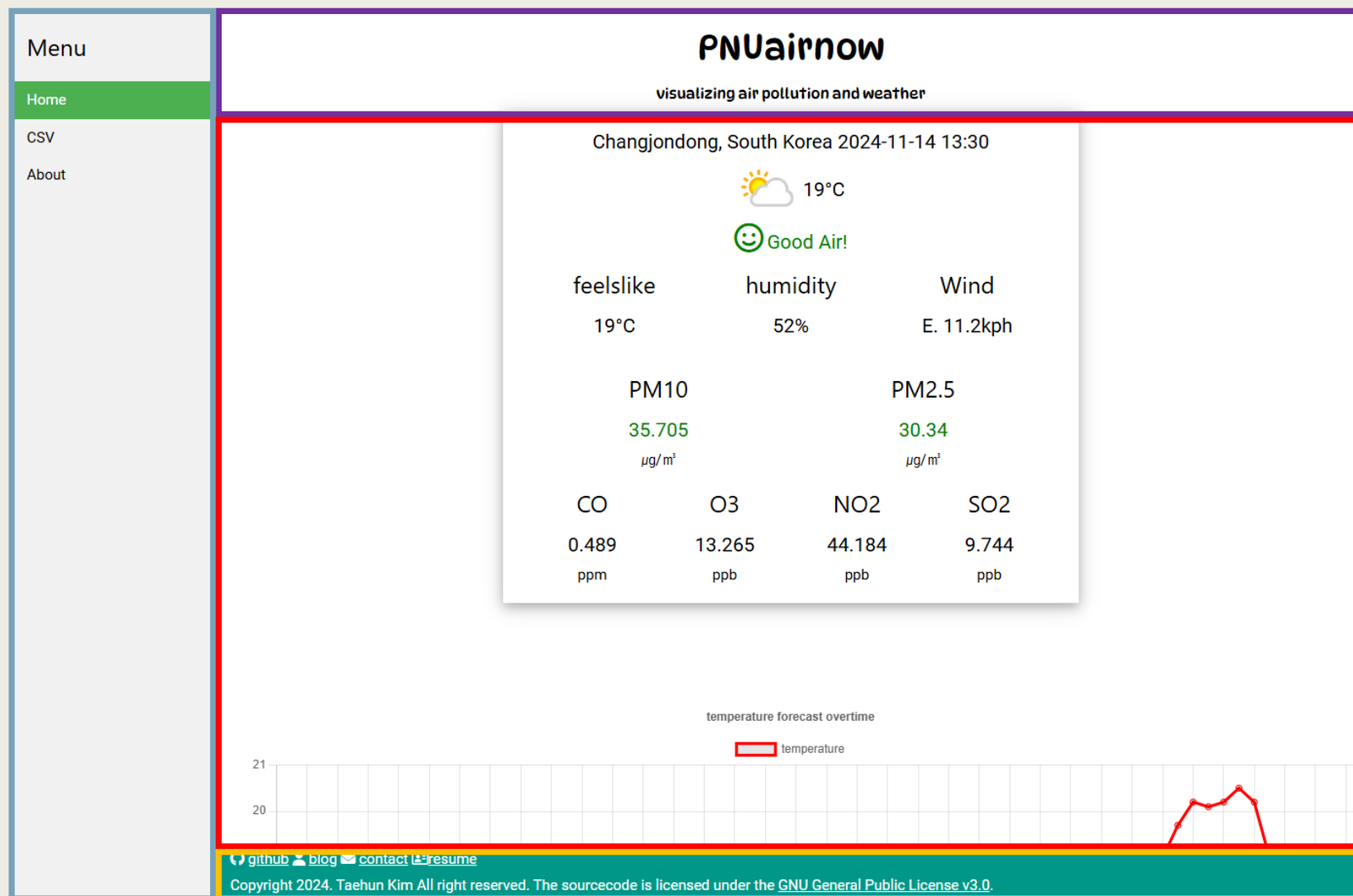
Air quality web page link

- https://minchocoin.github.io/air-quality-dashboard/

- You can download source code on

- https://github.com/minchoCoin/air-quality-dashboard

layout

Header

Navigation Bar

Main Dashboard

Footer

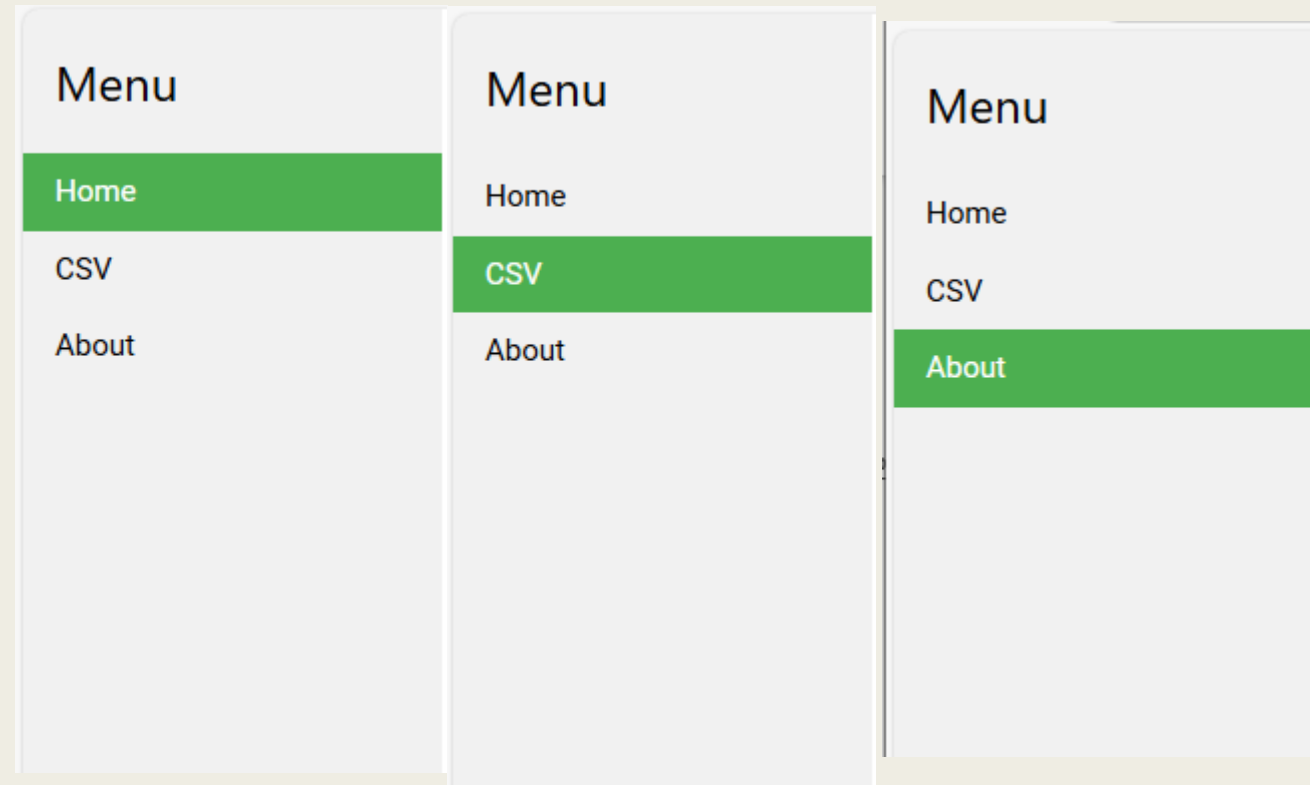# layout-header

- ■ Title of the application and a brief description.

Layout-navigation bar
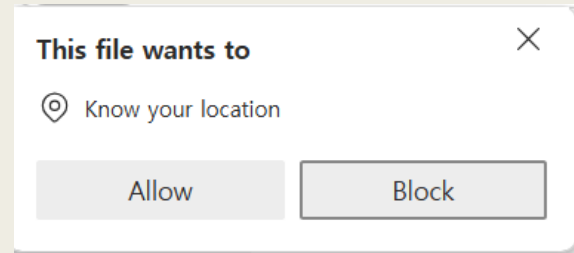
- You can switch the page

- through this navigation bar.

Layout- footer

○ github ▲ blog ✉ contact 🪪resume

Copyright 2024. Taehun Kim All right reserved. The sourcecode is licensed under the GNU General Public License v3.0.

- ■ You can view my github, blog, contact, resume link

- ■ License link(GNU General Public License v3.0)

Feature1. real-time dashboard

Changjondong, South Korea 2024-11-14 14:00

🌤 19.3°C

☺ Good Air!

feelslike	humidity	Wind
19.3°C	52%	E. 9.4kph

PM10	PM2.5
34.595	29.045
µg/㎥	µg/㎥

CO	O3	NO2	SO2
0.508	12.755	43.396	9.532
ppm	ppb	ppb	ppb

Using Free Weather API, jquery and AJAX

Real-time
- City
- Country
- Last updated
- Weather image
- Air quality
- Temperature
- Feelslike temperature
- Humidity
- Wind
- Pm10
- Pm2.5
- CO
- O3
- NO2
- SO2

Featur1-1. color of PM10 and PM2.5

- PM10 and PM2.5
  - *Good: blue*
  - *Moderate: green*
  - *Bad: orange*
  - *Very bad: red*

	good	moderate	bad	very bad
pm10	0-30	31-80	81-150	151-
pm2.5	0-15	16-50	51-100	101-

PM10	PM2.5
5.23	5.34
µg/㎥	µg/㎥

PM10	PM2.5
30.23	30.34
µg/㎥	µg/㎥

PM10	PM2.5
90.23	90.34
µg/㎥	µg/㎥

PM10	PM2.5
152.23	101.34
µg/㎥	µg/㎥

Feature 1-2. color of air quality

- UK DEFRA INDEX
  - *Good: blue*
  - *Moderate: green*
  - *Bad: orange*
  - *Very bad: red*
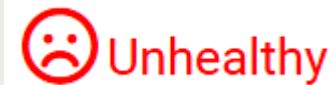
UK DEFRA INDEX Table
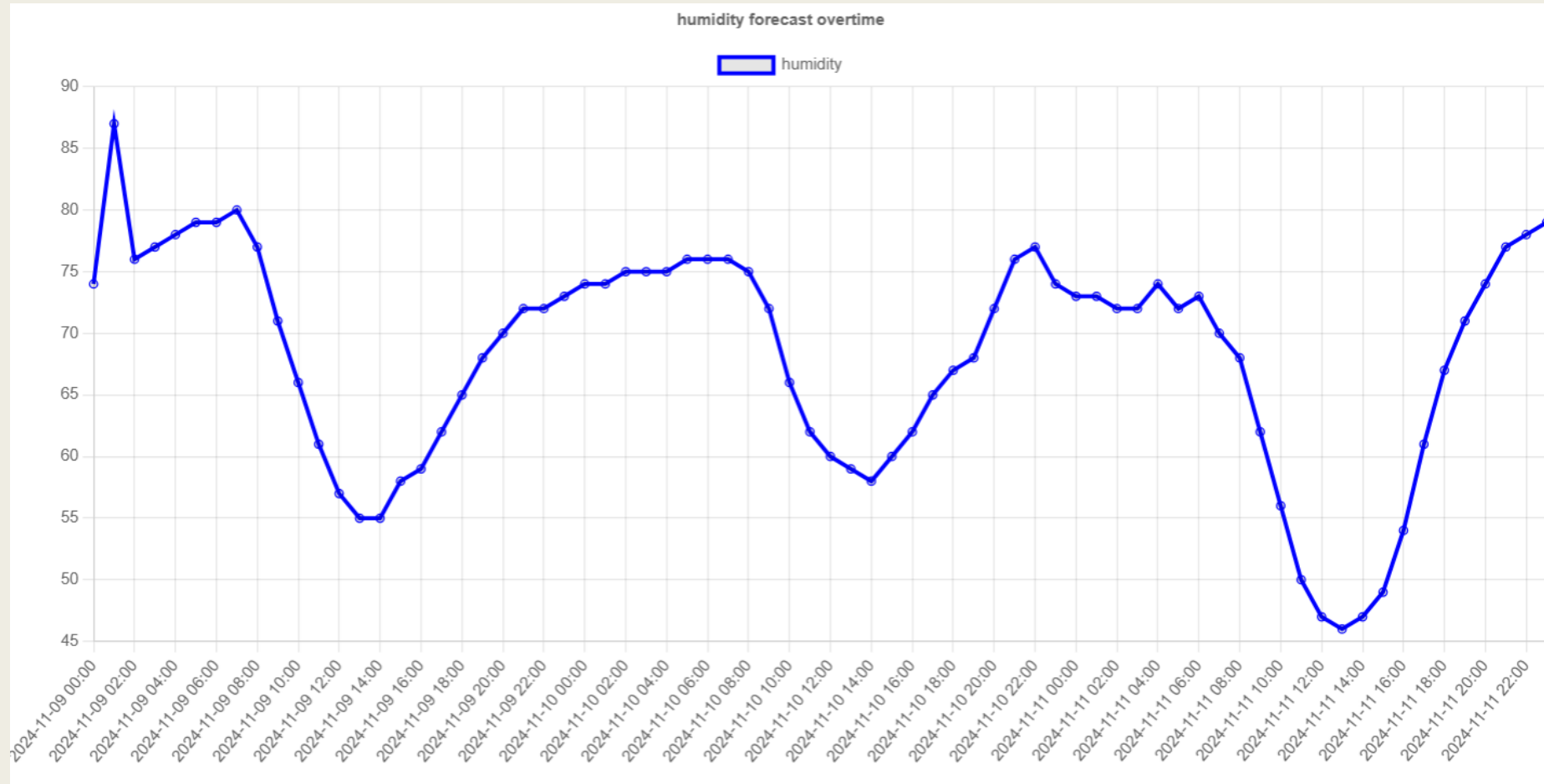
Index	1	2	3	4	5	6	7	8	9	10
Band	Low	Low	Low	Moderate	Moderate	Moderate	High	High	High	Very High
μgm^{-3}	0–11	12–23	24–35	36–41	42–47	48–53	54–58	59–64	65–70	71 or more

Feature2. temperature & humidity chart

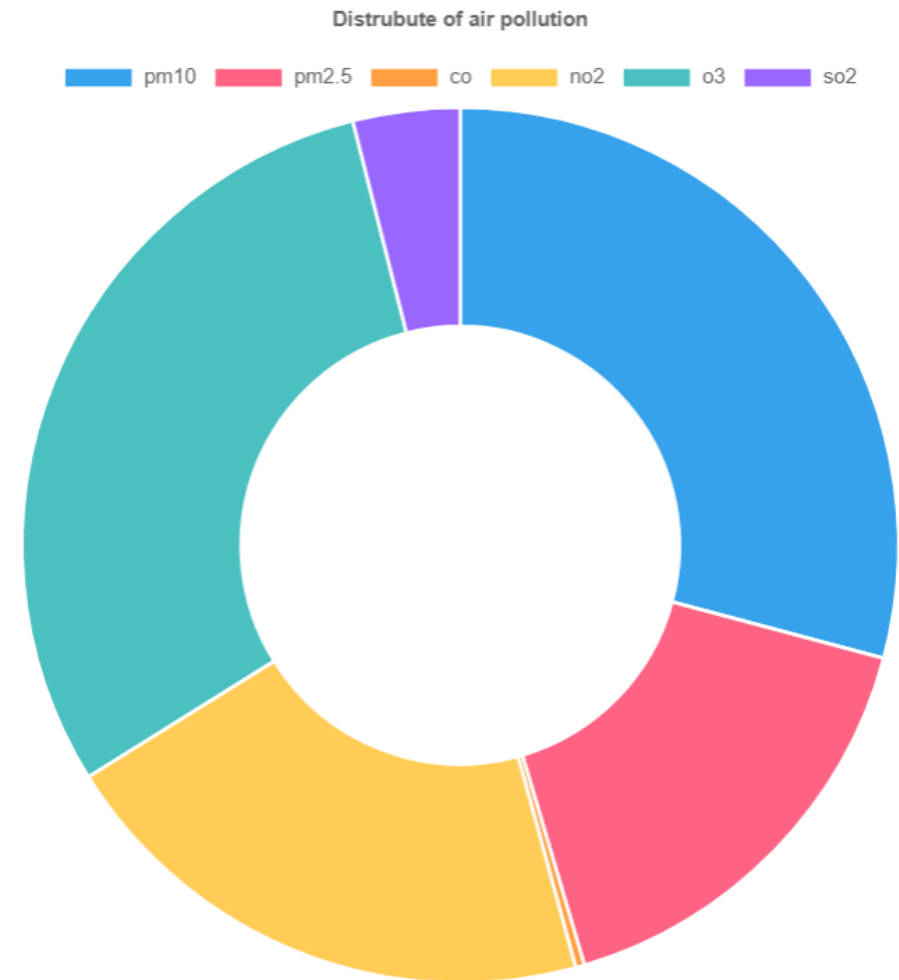temperature forecast overtime
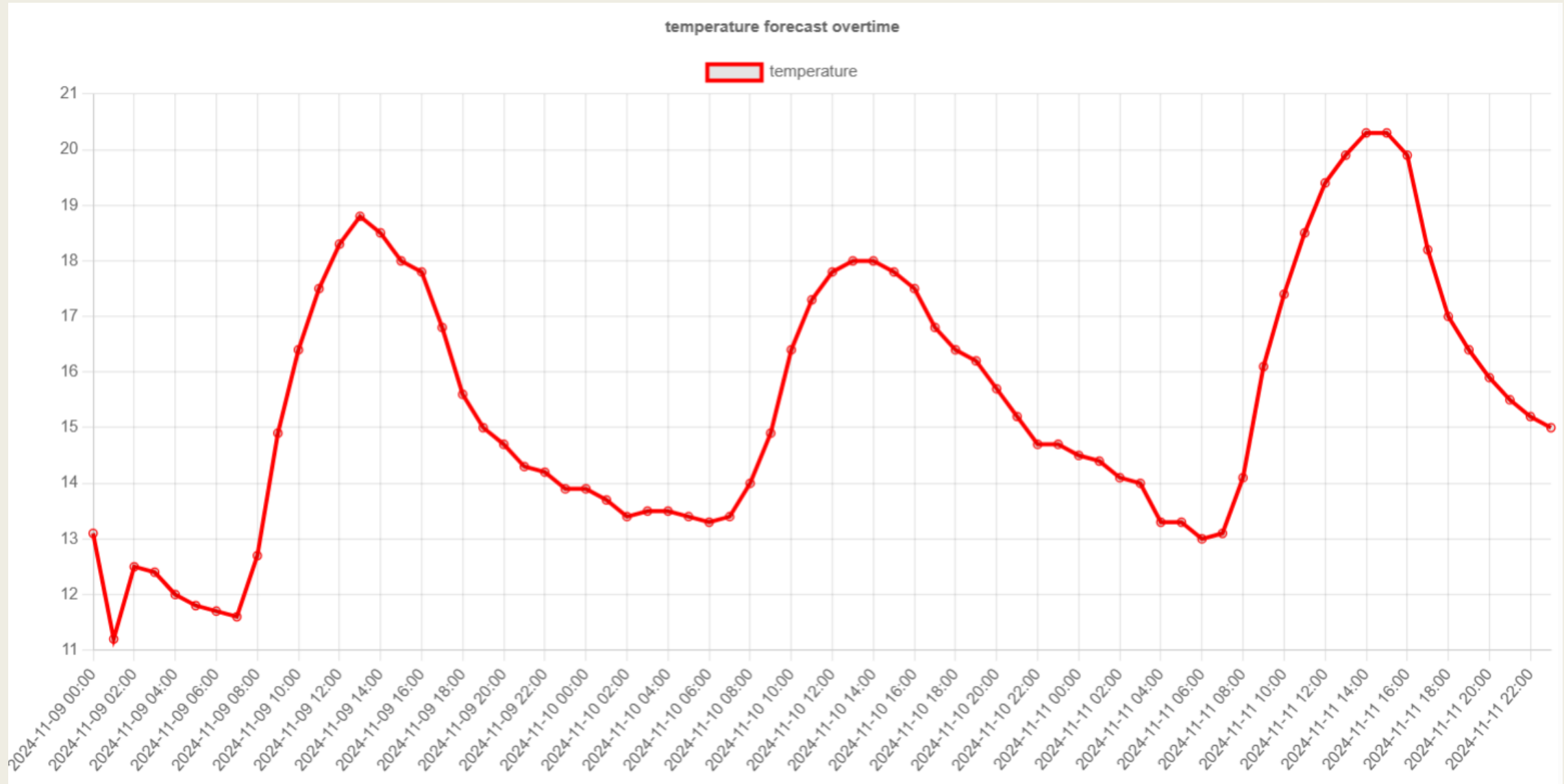
Feature2. temperature & humidity chart

Feature3. Air pollutants chart
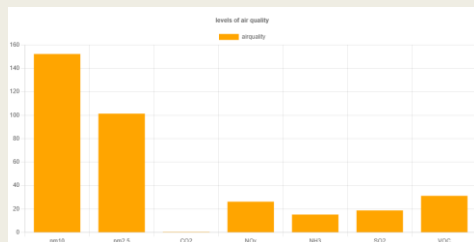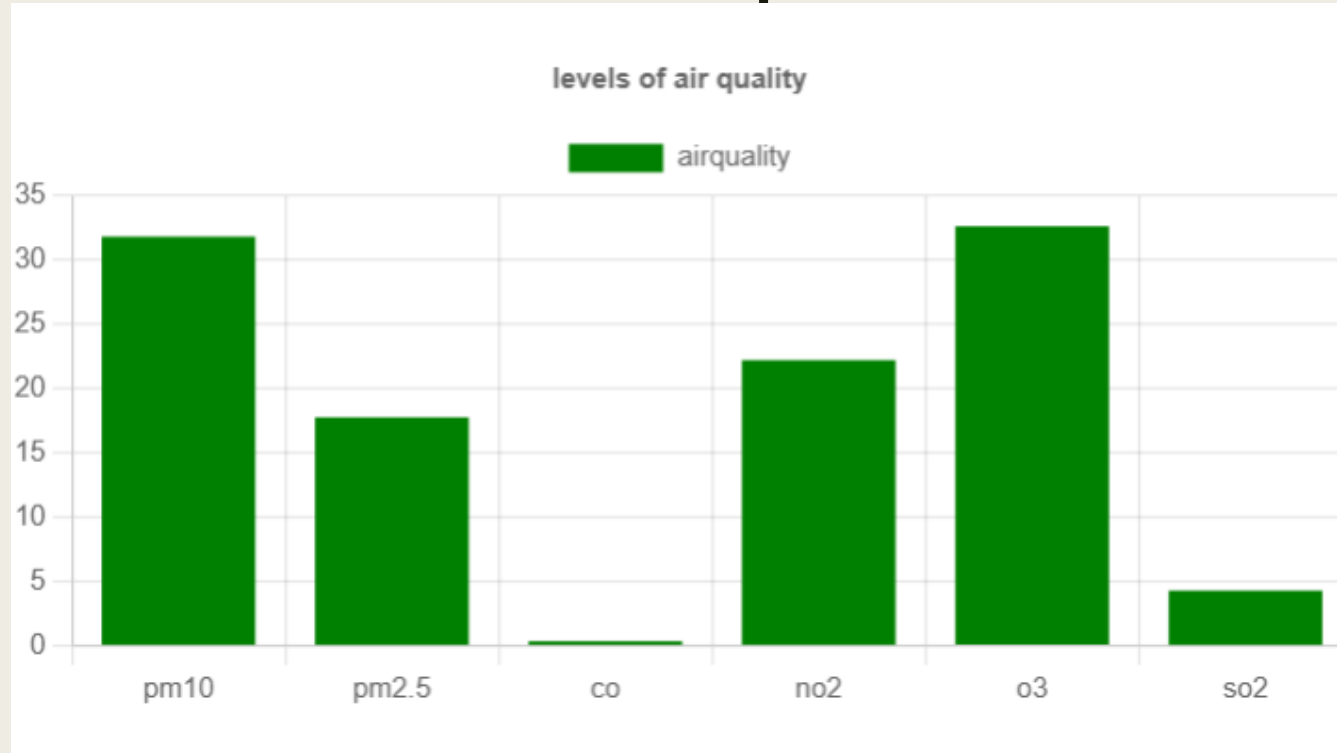
The color of air quality bar chart is the color of air quality

Feature4. CSV file dashboard

```
time,cityname,country,current,temperature,humidity,feelslike,wind_dir,wind_kph,pm10,pm2_5,co2,Nox,NH3,SO2,VOC,gb_defra_index
2024-11-06 0:00,Pusan,South Korea,,9.8,62,,,,,,,,,,,
2024-11-06 1:00,,,,9.2,62,,,,,,,,,,,
2024-11-06 2:00,,,,8.7,55,,,,,,,,,,,
2024-11-06 3:00,,,,8,48,,,,,,,,,,,
2024-11-06 4:00,,,,7.7,46,,,,,,,,,,,
2024-11-06 5:00,,,,7.4,48,,,,,,,,,,,
2024-11-06 6:00,,,,7.4,50,,,,,,,,,,,
2024-11-06 7:00,,,,7,52,,,,,,,,,,,
2024-11-06 8:00,,,,8.3,34,,,,,,,,,,,
2024-11-06 9:00,,,,10.1,47,,,,,,,,,,,
2024-11-06 10:00,,,0,11.5,43,8.3,W,2.3,152.23,101.34,0.458,26.231,15.241,18.756,31.215,5
2024-11-06 11:00,,,,12.5,40,,,,,,,,,,,
2024-11-06 12:00,,,,13.1,37,,,,,,,,,,,
2024-11-06 13:00,,,,13.5,37,,,,,,,,,,,
2024-11-06 14:00,,,,13.7,37,,,,,,,,,,,
2024-11-06 15:00,,,,13.5,37,,,,,,,,,,,
2024-11-06 16:00,,,,12.9,39,,,,,,,,,,,
2024-11-06 17:00,,,,11.8,42,,,,,,,,,,,
2024-11-06 18:00,,,,10.6,45,,,,,,,,,,,
2024-11-06 19:00,,,,9.9,48,,,,,,,,,,,
2024-11-06 20:00,,,,9.3,52,,,,,,,,,,,
2024-11-06 21:00,,,,8.8,55,,,,,,,,,,,
2024-11-06 22:00,,,,8.4,58,,,,,,,,,,,
2024-11-06 23:00,,,,8.1,61
```

Pusan, South Korea 2024-11-06 10:00

☀️☁️ 11.5°C

😐 Moderate

feelslike	humidity	Wind
8.3°C	43%	W. 2.3kph

PM10		PM2.5
152.23		101.34
μg/㎥		μg/㎥

CO2	NH3	NOx
0.458	15.241	26.231
ppm	ppb	ppb

SO2		VOC
18.756		31.215
ppb		ppb

Time, cityname, country, temperature, humidity ,feelslike, wind,
pm10,pm2.5, co2, Nox, NH3, SO2,VOC,defra_index

Feature5. about