

WEB APPLICATION PROGRAMMING

Final Project

Progress Presentation

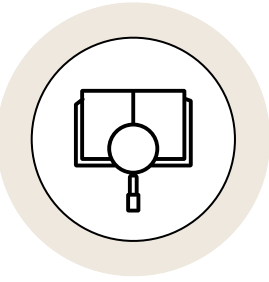
PARK Sejoeng
202125203

CONTENTS



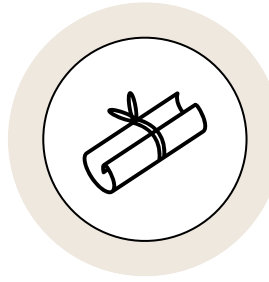
1. Project Overview

Default Screen layout
Main Data source
Technologies Used



2. Work Completed So Far

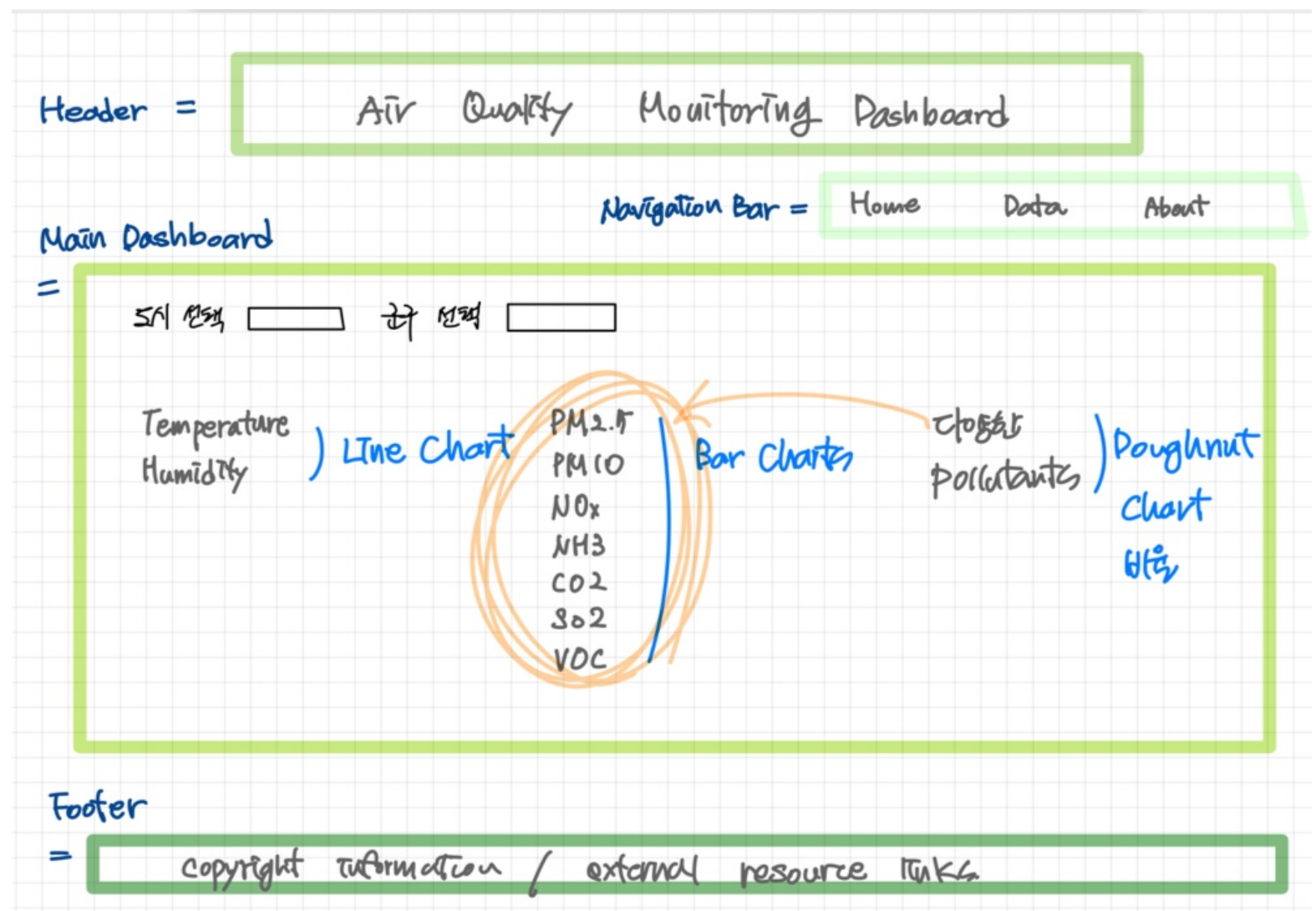
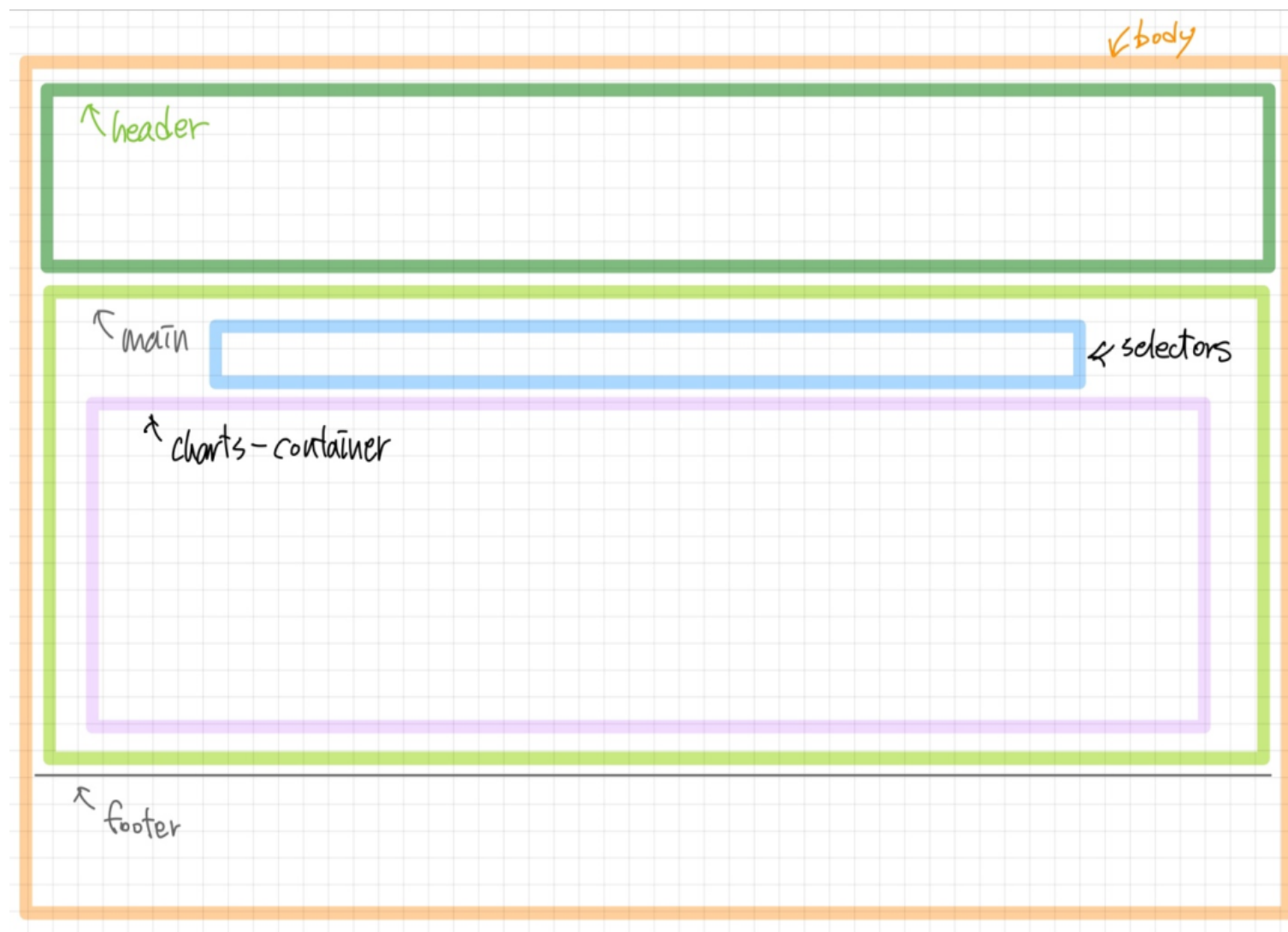
Current Web Page Description
Features Attempted So Far
Errors and Issues



3. Upcoming Plans

Features to Add and Modify by
the First Week of December

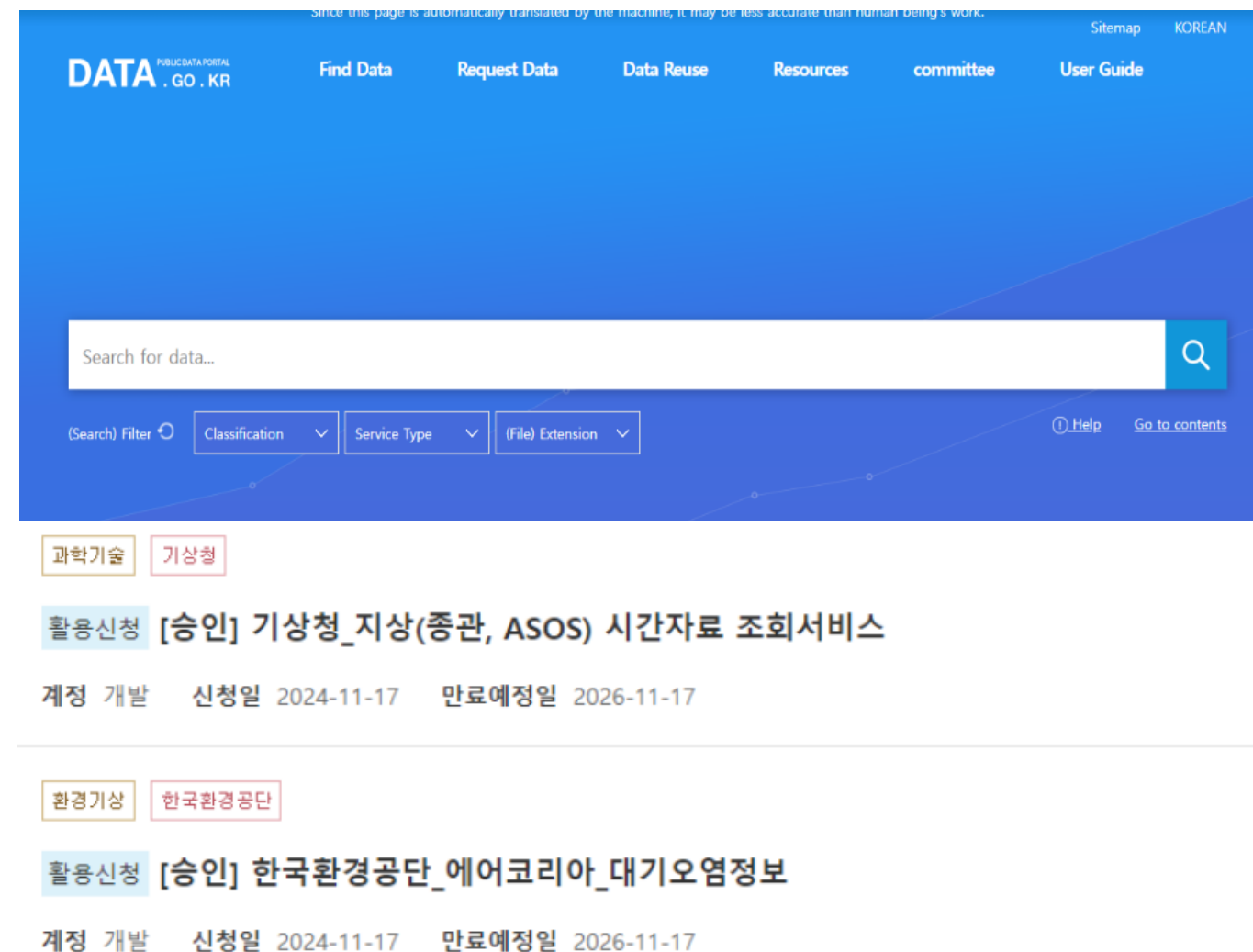
1 Project Overview



Default screen layout

1 Project Overview

Main data sources 주요 데이터 출처



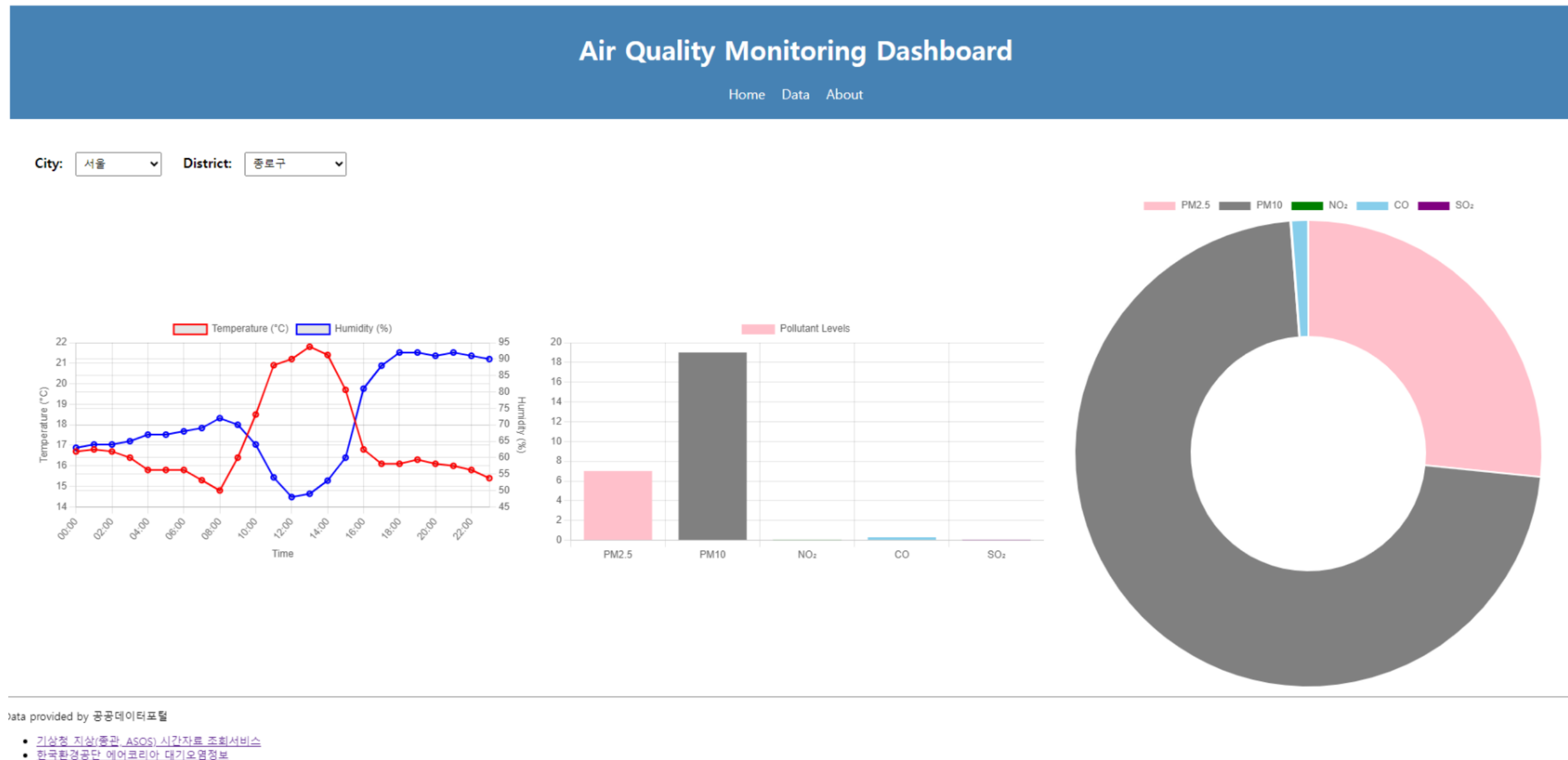
Introduction to key data 주요 데이터 소개

- 기상청 (Korea Meteorological Administration (KMA)) API:
Temperature and Humidity
 - Hourly average temperature (1-hour intervals)
 - Hourly average humidity (1-hour intervals)
- 한국환경공단 (Korea Environment Corporation (KECO)) API:
Air Quality Data
 - PM2.5 (Unit: $\mu\text{g}/\text{m}^3$)
 - PM10 (Unit: $\mu\text{g}/\text{m}^3$)
 - NO2 (Unit: ppm)
 - CO (Unit: ppm)
 - SO2 (Unit: ppm)

2

Work Completed So Far

Real-time Air Quality Monitoring Web Interface in Progress 진행중인 실시간 대기질 모니터링 웹화면



2

Work Completed So Far

Screen when no city is selected

Air Quality Monitoring Dashboard

[Home](#) [Data](#) [About](#)

City:

Select a city

District:

Select a district

ta provided by 공공데이터포털

[기상청 지상\(종관, ASOS\) 시간자료 조회서비스](#)

[한국환경공단 에어코리아 대기오염정보](#)

2

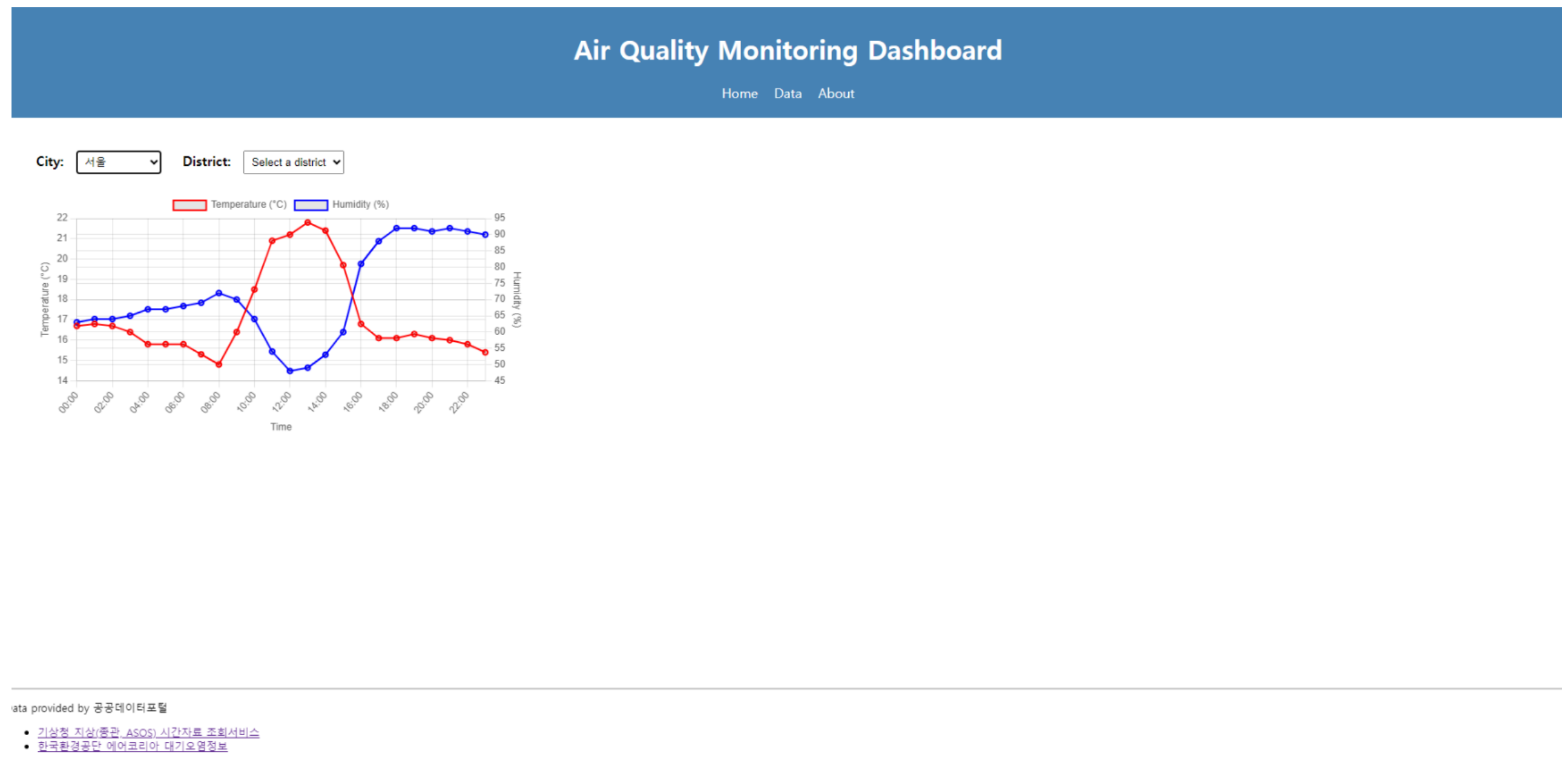
Work Completed So Far

After selecting a city, a line chart appears.

City:

Select a city

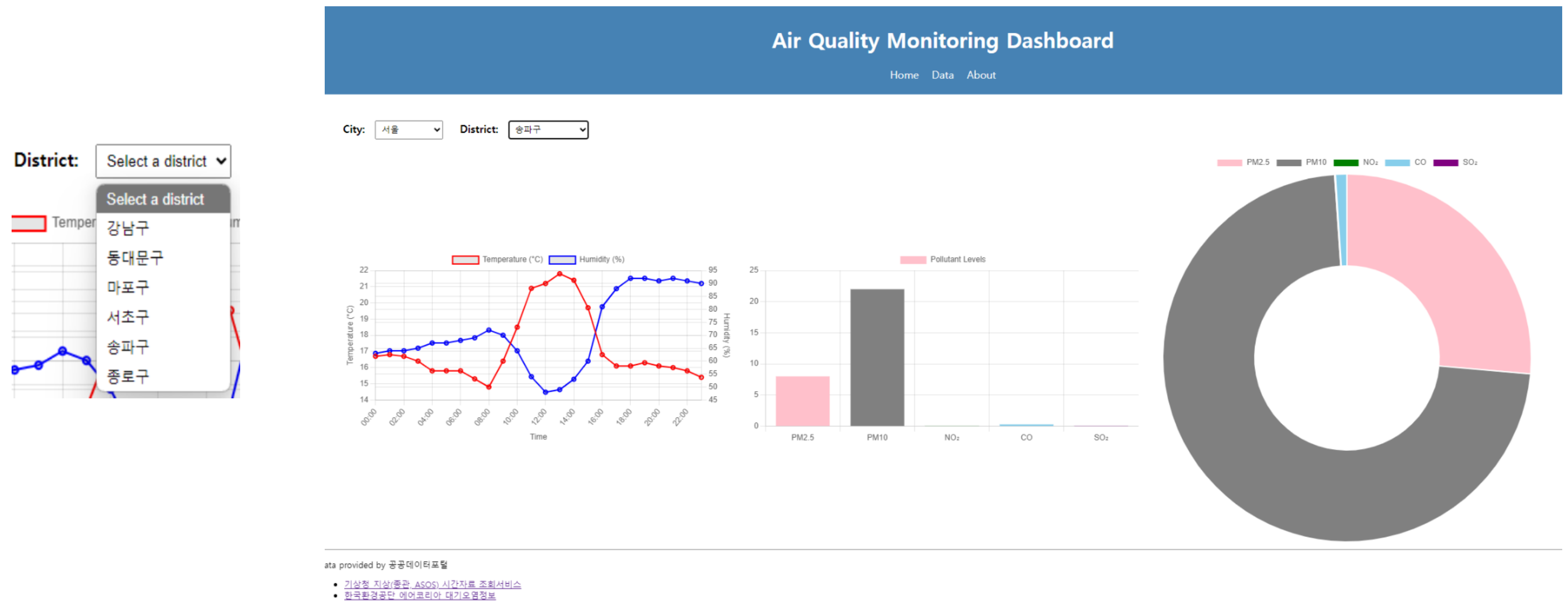
서울
부산
인천
대구
광주



2

Work Completed So Far

After selecting a district, a bar chart and a donut chart appear



2

Work Completed So Far

Current Errors and Issues to Be Fixed



- No errors occur when opening the webpage on a local host.
- However, the following error occurs when accessing the deployed GitHub URL
- I think that this is CORS error

```
&stnIds=${cityId}&startDt=20241116&startHh=00&endDt=20241117&endHh=23&dataType=JSON`;
```

Additionally, the temperature and humidity data are not real-time but fixed to a specific date.

3 Upcoming Plans

Resolving Current Problems

1. A CORS (Cross-Origin Resource Sharing) error occurs due to a mismatch between the HTTP and HTTPS protocols.

⇒ Attempt to resolve using a proxy server

2. Modify the code to fetch real-time data

Create Home, Data, and About web pages

1. When Home is clicked: Display an initial screen showing the charts.

2. When Data is clicked: Display a screen explaining detailed items such as air quality data.

3. When About is clicked: Display a screen explaining the sources of the data and the purpose of this site.

Overall design modifications using CSS

The screen is too rough.

⇒ Use CSS for styling and layout, possibly utilizing a CSS framework.

⇒ Implement color coding to indicate air quality levels

THANK
YOU!

PARK Sejeong 202125203

Web application programming Final Project