Link to Deployment:
Deployment

Link to Interactive Visualization:
Interactive Visualization

Design Decisions:
For part two of A3, I wanted to create a way to allow the user to directly compare the stations. This led me to creating two main interactions that allowed for the comparison of all the stations or exactly two stations. Within these two interactions, I designed different interactions that I thought would give insight into the other facets of the data points. I thought about what interactions could give details about the data that were not available from part one. This led to the initial idea of having a direct comparison between stations and the ability to select two different stations to compare. From this I explored multiple ways the user could interact with the charts of the selected stations. The first was showing all pollutants represented in the data points and allowing the user to filter the data points based on the pollutants present. The monthly average and inner 80 percentile change with the filtering. The next part of the interaction involved adding brushing which would allow user to view the min and max AQIs of all the visible points.

Finally, I wanted to show the location of each station, and let the user see relevant information about each one (while highlighting the selected stations). To do this, I created a map of Allegheny county with points representing each station. When a user hovers over a point, it displays some key details about it (min/max AQI, station next, etc), and a summary about the location is shown under the "about" header.

As a bonus, I made a copy of the original chart and added a tooltip for each point. I had considered using the legend at the top as a way to allow users to select points inside the given rang, but ultimately decided not to (due to complexity).

Goals for Visualization:
The question that led to the visualization: *How does the air quality data differ between stations*? This question mainly focuses on trying to explore all the available differences/similarities between any two given stations. This is why the user can filter out pollutants that are present in the selected data sets, brush to compare the min/max AQI values, and interact with the map featuring the selected points.

Overview of Development Process
Each part presented its on set of unique challenges. The first part took the longest because I was trying to find d3 inside the svelte. I would say that this took me approximately 5-7 hours. The challenges of part two involved thinking of a meaningful way for the user to interact with the data and then successfully enabling them to do so. For example, I struggled a lot with getting the tooltip to work the way I wanted it. I also spent an absurd amount of time styling things. In terms of

My main use for AI in this project was debugging issues with Svelte and d3 issues.
For list a of AI prompts relating to code, refer to thisfile