**Final Project Summary**

Initially I wanted to run my project within a Panel notebook but I was getting errors within the binder deployment, so I switched to using GitHub pages. I struggled significantly with the website coding needed to integrate everything (particularly the template needed to add the slider selection for the altair barchart – which is included within a Python codeblock on the page for inspection). I’m not sure which div class to edit on the template, and also I’m unclear on exactly where this template should go within GitHub pages (I’m assuming the charts folder).

Below are workflow descriptions of how I made the two folium maps, which I mostly recycled from assignment #6…

**Altair – Philadelphia Potholes by Neighborhood**

Starting with the app1.py template, I tinkered with this to work with the potholes data set. Data is spatially joined with the neighborhoods of Philadelphia. I had to make the length longer because the neighborhood text was jumbling up along the y axis. I chose to visualize for the number of open/closed potholes by mapping to the dataframe’s status column.

I was able to link this to the HTML template #2 in my local browser to add the slider selection functionality (for the selection of number of days) however I had trouble integrating it within the post. Even after reviewing the last two lectures, I was unsure of how exactly how to integrate it within GitHub pages.

Also I had to limit the requests back to the first 5000 (which only happened with the queries over about 100 days) because Altair can only map this many.

**Folium – Pothole Maps (Heatmap and Point Cluster)**

1. Query the API to pull 311 requests, filtering for only the street defects
2. Initialize the geometry array, using shapely geometry
3. Get the bounds of the geodataframe
4. Plotted the heat map
5. For the point cluster map…
   1. Add in marker cluster to the next map
   2. Add in popup options to view the reported address
   3. Also color the icons by color for whether the pothole was fixed or not (has a status of open or closed).

I also wanted to add in a slider integration here too but was unsure of how to integrate it within the markdown post provided on GitHub pages…