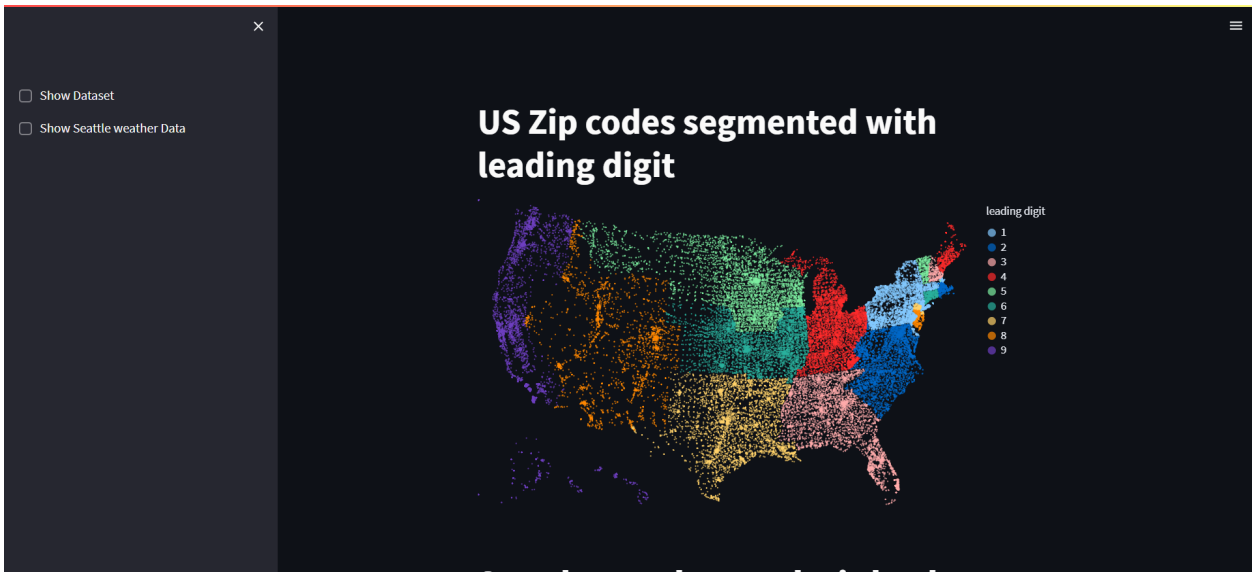
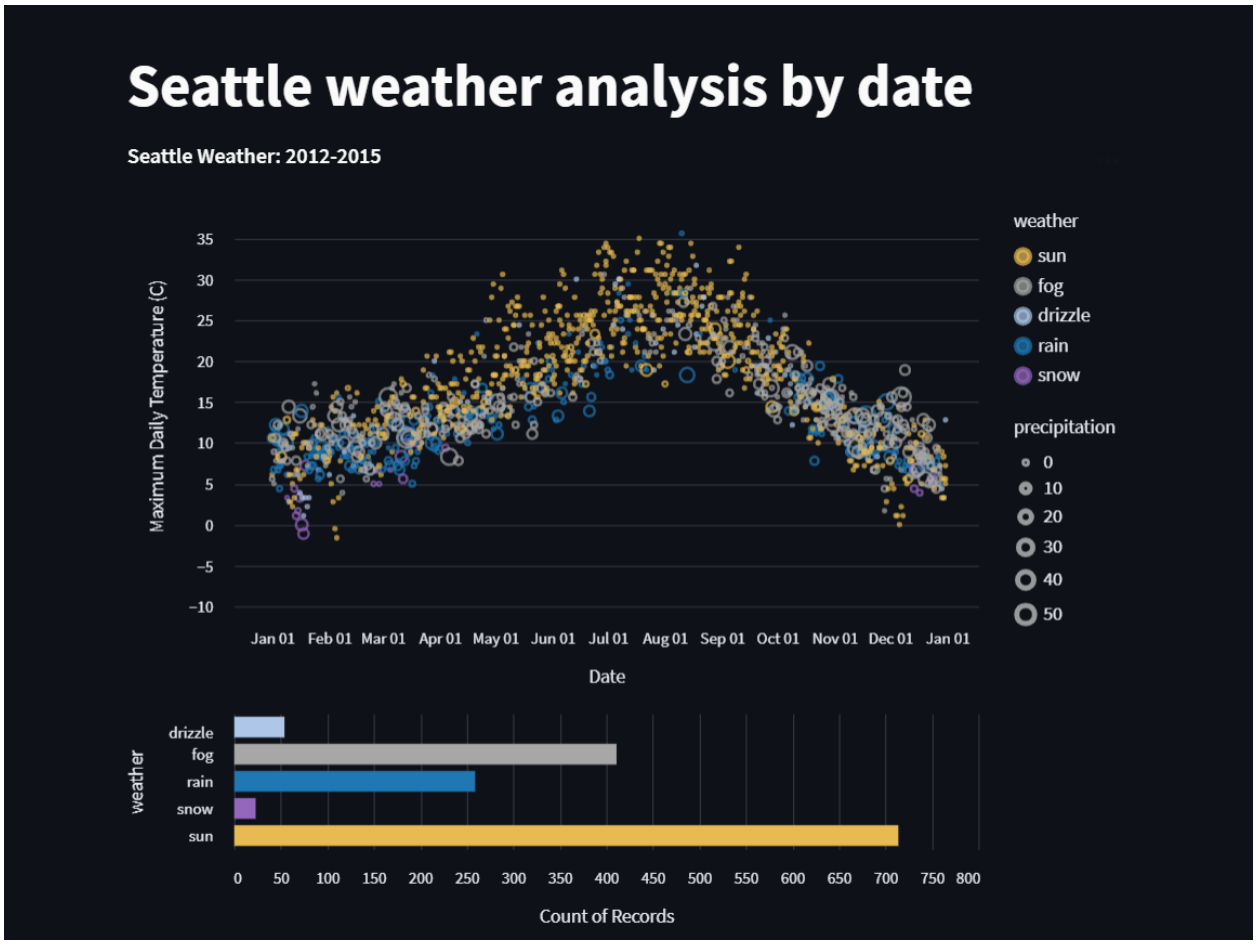
Visualizing the US Zip code leading number on a Cholopleth map

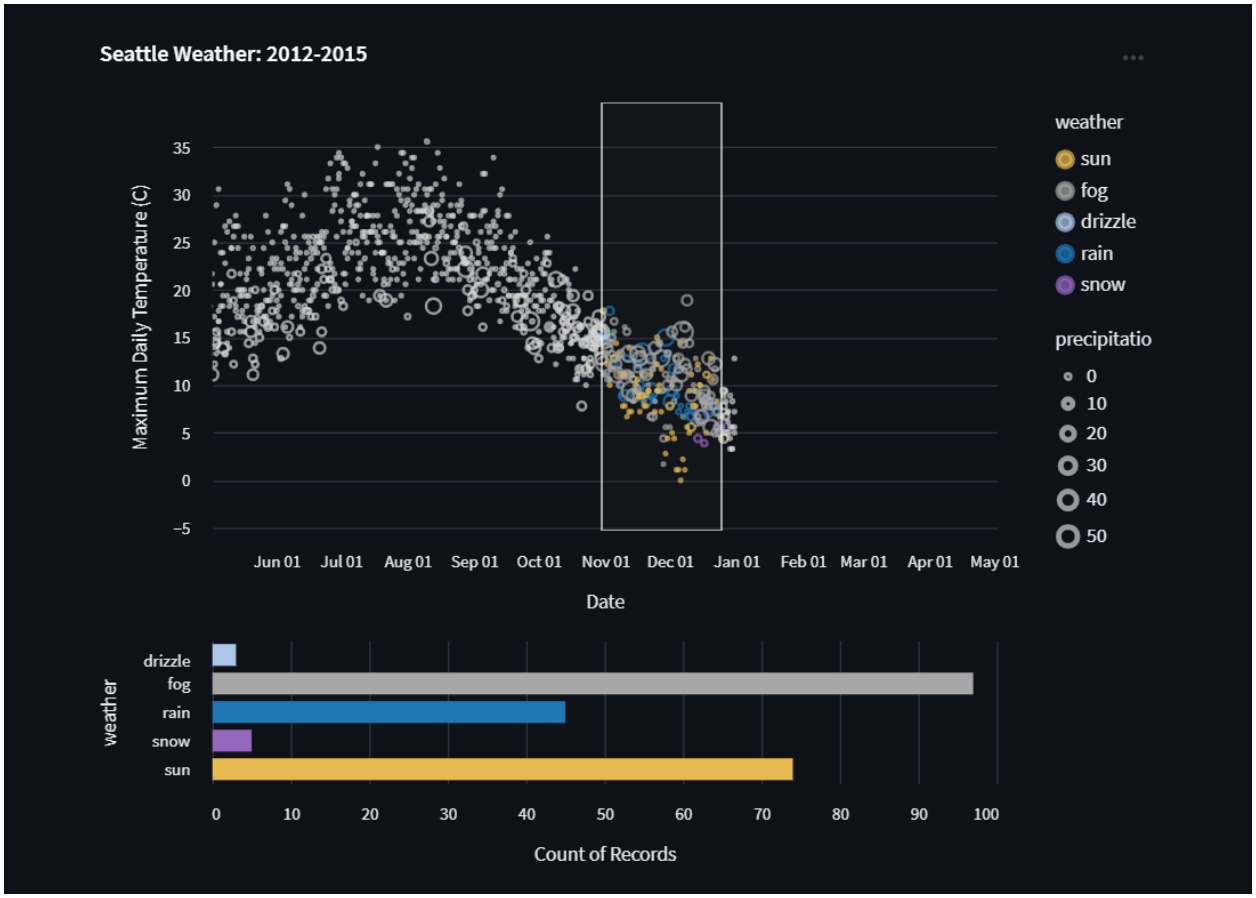
- Two libraries I want to highlight in this assignment are Altair and streamlit.
- **Streamlit** - This library helps us quickly spin up a web app containing visualizations using libraries of our choice. It gives us the functionality to design a dashboard that users can interact with using user friendly components like checkboxes, input text boxes and sidebars to separate the content into a clean web app.
- **Altair** - This library is an extraordinary choice when you need to quickly deduce information from a dataset without spending much time or effort to produce such a complex viz. The declarative grammar is one of the highlights of this library, written on top of the Vega-Lite framework. It lets us produce rich, interactive charts that are intuitive to the human eye.
- This visualization distinctly shows us how the zipcodes are assigned and segregated in the country.
- 

Time series analysis of the weather conditions in Seattle:

- This visualization shows us the weather conditions of Seattle w.r.t a time series on the X-axis.
- The marks used are circles, and two other important aspects of the weather conditions are incorporated as channels such as the Weather Type [color] and the magnitude of precipitation [Size of circle], into the visualization.

- To complement this insightful chart, there is a bar chart below that shows the sum(x) portrayed as bars, with x being the Weather Type. This shows the count of all occurrences of the Weather Type in the selected timeframe.
- 

- Additionally, Altair lets us select the time frame we want to analyze. This change also reflects in the bar chart below allowing us to dive deep into the data.
- Therefore, this visualization library is a great tool for users looking to do some Exploratory Data Analysis on a piece of data. *Example below:*



GIF example: https://gyazo.com/37a2fd907104faff34d47c06c9d5895a

Instructions to run the project:

1. ‘cd’ into the directory in the command line
2. Run `cd Scripts && activate.bat` [Windows]
3. Run `cd .. && streamlit run data.py` [This should open your browser window with the app]