# INFO 474 Final Deliverable

Design Overview:

The graph consists of a map of a selected city and three charts for that city. The first chart is a scatter plot of temperature versus precipitation, while the other two charts are circular line charts for temperature and precipitation, respectively. The user can adjust the time by dragging a bar in the middle. The design is aimed at providing an overview of the weather data for the selected city and allowing users to explore the relationship between temperature and precipitation. The analytical questions that can be answered through this visualization are how temperature and precipitation change over time and whether there is a correlation between temperature and precipitation. The communicative objective is to present weather data in a user-friendly and interactive way that allows users to gain insights into the climate of the selected city.
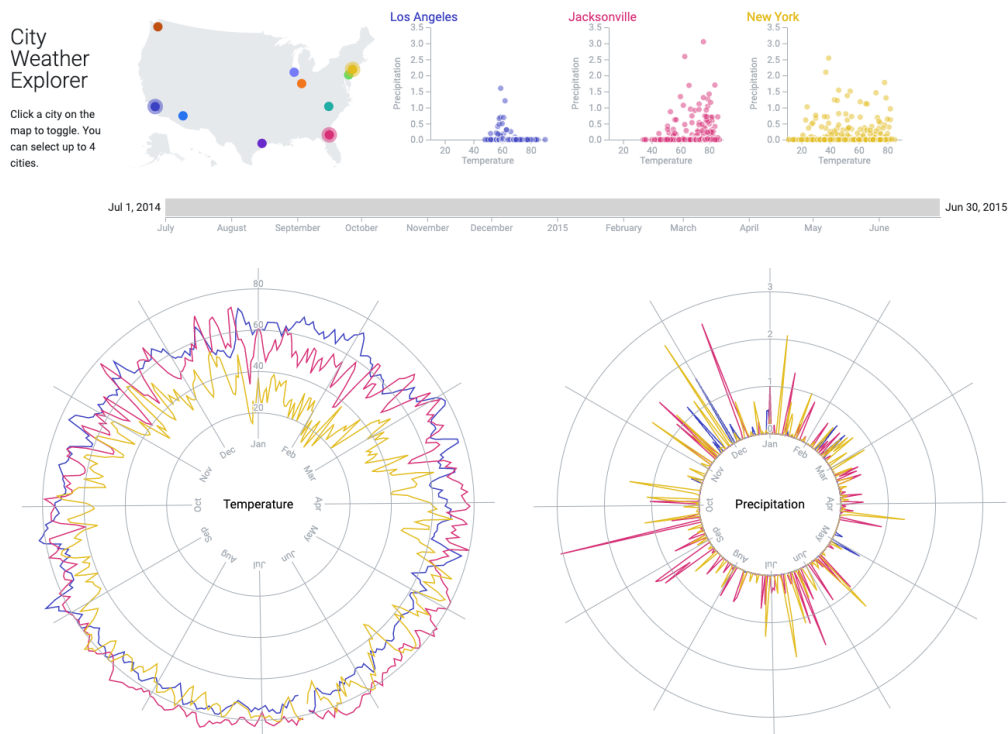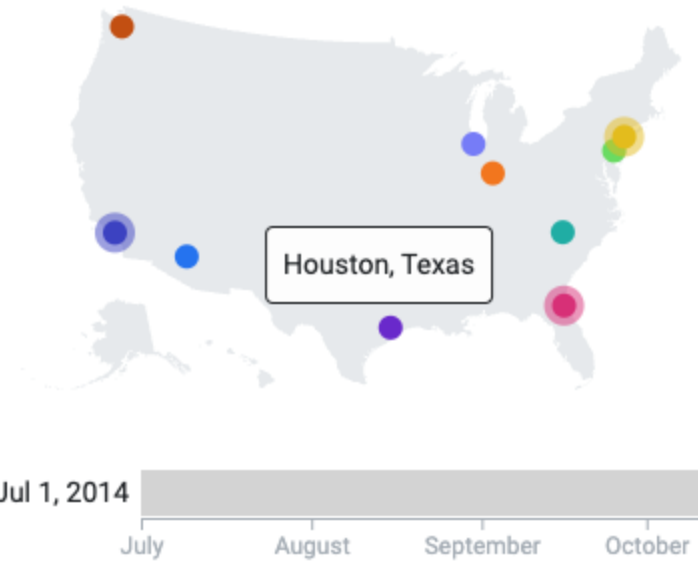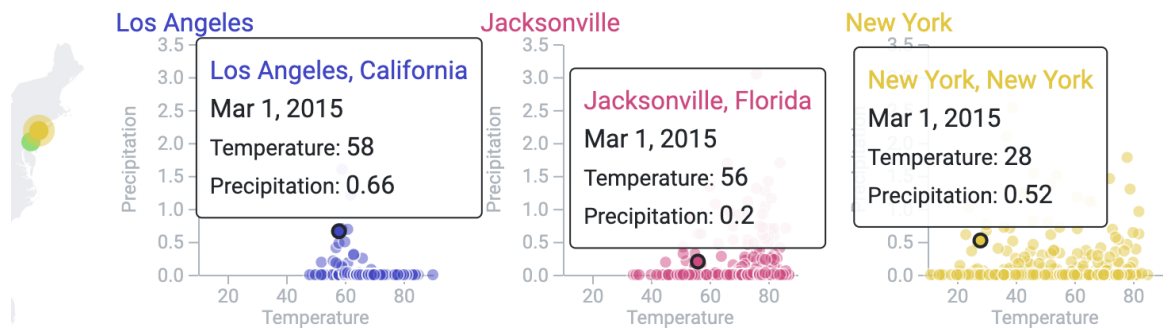
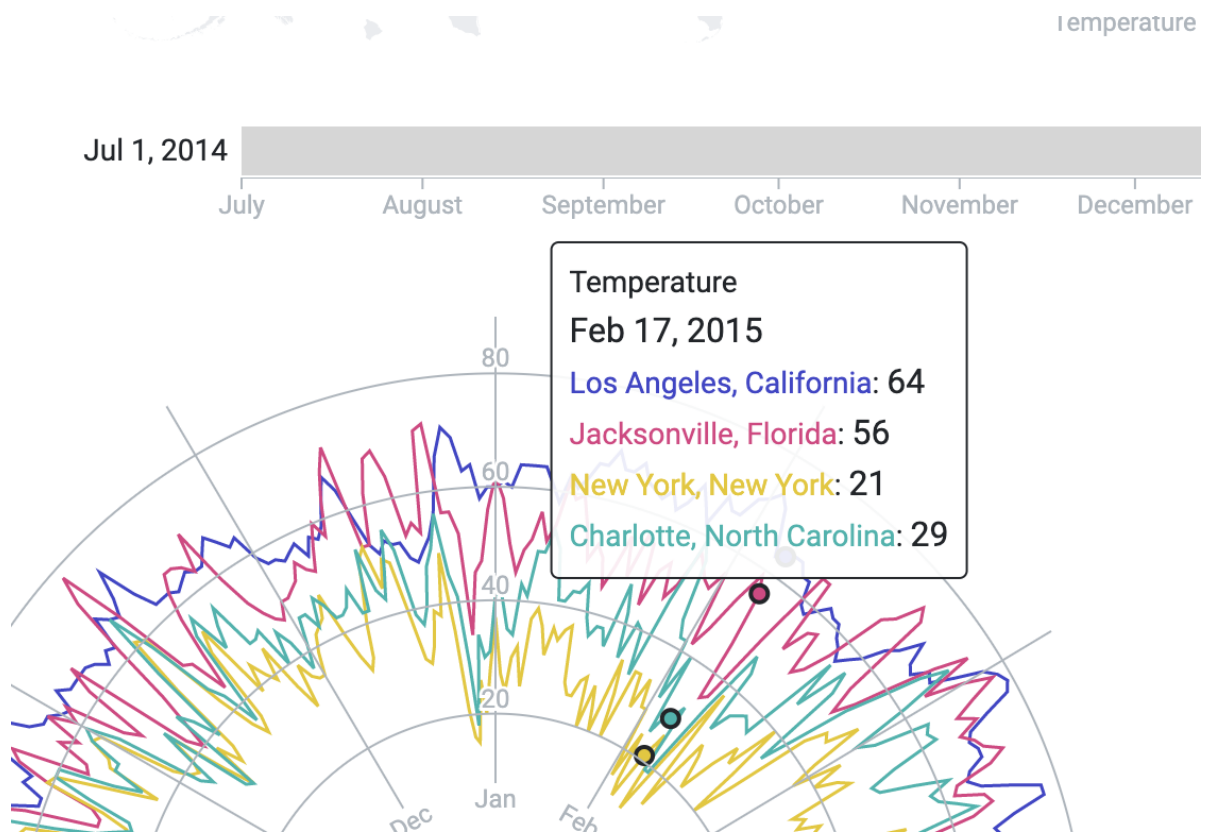

User Tasks:

1. Select a city on the map

2. Adjust the time by dragging the bar in the middle of the screen

3. Hover over data points on the scatter plot to see specific temperature and precipitation values

Los Angeles

Los Angeles, California
Mar 1, 2015
Temperature: 58
Precipitation: 0.66

Jacksonville

Jacksonville, Florida
Mar 1, 2015
Temperature: 56
Precipitation: 0.2

New York

New York, New York
Mar 1, 2015
Temperature: 28
Precipitation: 0.52

4. Hover over different parts of the circular line charts to see temperature or precipitation values for specific times of year

Temperature

Jul 1, 2014

July   August   September   October   November   December

Temperature
Feb 17, 2015
Los Angeles, California: 64
Jacksonville, Florida: 56
New York, New York: 21
Charlotte, North Carolina: 29

Aspect of Interface/Visualization that needs explanation:

The circular line charts might be unfamiliar to some users, and they might not understand how to read them at first. The charts show the temperature or precipitation for each month of the year, with the months arranged in a circle around the chart. Users should understand that the outer edge of the circle represents the value for January, and the values progress clockwise around the circle to December. This design allows users to easily see seasonal trends in the weather data.

In terms of design, the graph has a clean and simple layout that is easy to navigate. The map is prominently displayed at the top of the screen, and users can select a city by clicking on it. The three charts are located below the map and are arranged in a vertical stack. The scatter plot is located at the top of the stack, followed by the circular line chart for temperature and then the circular line chart for precipitation.

The scatter plot shows the relationship between temperature and precipitation for the selected city. Each data point represents a day, and the x-axis shows the temperature while the y-axis shows the precipitation. Users can hover over each data point to see the specific temperature and precipitation values for that day.

The circular line charts show the temperature and precipitation for each month of the year. As mentioned earlier, the months are arranged in a circle around the chart, with the outer edge representing January and the values progressing clockwise around the circle to December. Users can hover over different parts of the chart to see the temperature or precipitation values for specific times of year.

The bar in the middle of the graph allows users to adjust the time period being displayed. They can drag the bar to the left or right to see weather data from different times of year. This feature is useful for comparing weather patterns from different seasons or years.

Overall, the graph provides a useful and intuitive way for users to explore weather data for a selected city. The different charts allow users to examine the data from different angles, while the interactive features make it easy to explore the data in detail.

For the code, you can simply running https://servefolder.dev/ the folder