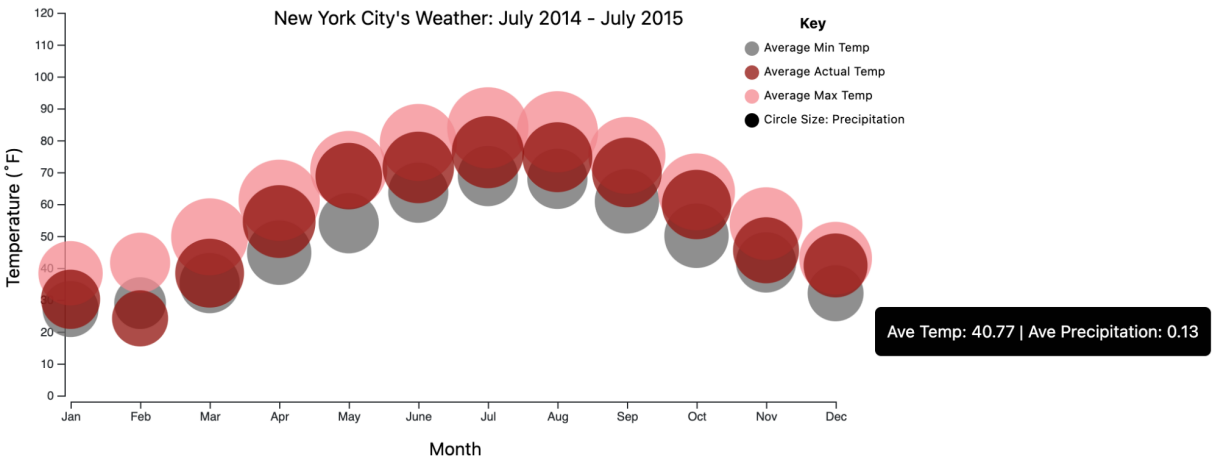
Design Overview:

The main purpose of the design is to compare the temperatures (actual, high, and low) to the precipitation levels at those temperatures. This design enables us to see averages of all variables per month, but it doesn't allow us to see these variables during specific times of the year. The main purpose of this design is to see overall comparisons. The reasoning behind this design choice is the fact that most people that are looking at this design are regular people who need general normal temperatures as opposed to specific days of the year. This visualization enables the user to take a quick glance and have a good general idea of what the weather is going to be like throughout that month. If they want more specific information, this graph provides more transparency viewing as well.

Specifically, this design includes three circles for each month of the year. The light pink circles represent average maximum temperature, the red circles represent average actual temperatures during that month, and the gray circles represent average minimum temperatures. The size of the circles represent precipitation. The pink circle size represents max precipitation during those months, the gray circle size represents average precipitation, and the size of the gray circles represents minimum precipitation. When you hover over each circle, you can see more specific information about the information each circle is visualizing such as "Average Temperature" and "Average Precipitation". I wanted to utilize a combination of color and circle size to provide quick and easy general understandings of weather throughout the year in New York City. This visualization will not allow users to see more specific trends daily or specific peaks and lows with their corresponding years.



This image shows one of the views of the visualization. You can't see it in this screenshot, but the laptop mouse is hovering over the red circle of December. It describes the pop up representing Average Temperature and Average Precipitation for the month of December.

List of User Tasks:

1. As a tourist, I want to familiarize myself with the common weather during the summers in New York so that I can pack correctly and plan accordingly.
    - TASK: Understand what is standard / normal

2. As an influencer, I want to loop up the general precipitation levels in New York so that I can predict whether or not an outside photoshoot would be appropriate for a certain time of the year based on precipitation levels.
    - TASK: Estimate chances

3. As a tech CEO of a weather app, I want to provide unique insights about normal precipitation levels compared to current precipitation levels so that I could add interesting and different insights to my users that they can't get from other standard weather apps.
    - TASK: Highlight unique insights

4. As a meteorologist, I want to study the trends of common weather and abnormal weather throughout the years so that I can research and predict how global warming will affect our cities in the future.
    - TASK: Discover trends and significant changes over time

5. As a new grad, I want to look up the common weather types in various cities such as New York City to gain a general idea of the weather throughout the year to see if I would enjoy my living conditions once I move.
    - TASK : Gain general understanding and reflect

6. As a person who loves plants, I would like to understand why my plant might be doing better during certain parts of the year vs others as well as gain explanations for why my plants may have abnormal growth this year as opposed to others.
    - TASK: Find Explanations