Climate Change in Three Cities

Select your city: [Seattle ⌄]
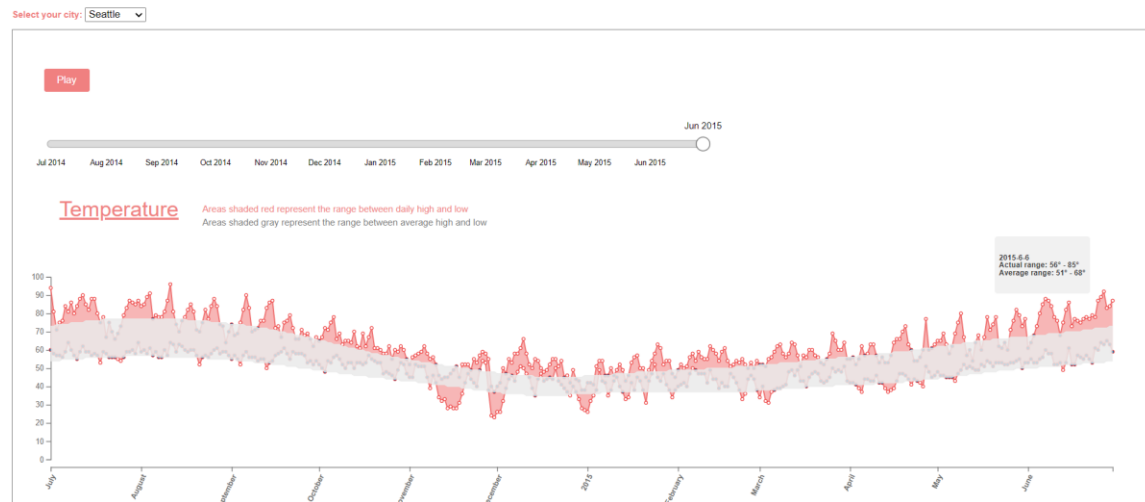

Overview:

        As the title suggests, the design aims to show general temperature trends across three cities, each with a view of the city and city can be selected at the top of the visualization. Each interface of the city includes two area charts for maximum and minimum temperatures of each day. The area in red represents actual maximum and minimum temperatures and area in grey represent the average temperature on that day since 1880. Based on the overlapping shaded area, it is easier to judge the difference between the actual temperature and the average temperature in order to reflect the effect of climate change. As you hover to each datapoint, a tooltip will show up and information including date, actual and average temperature range will display on the tooltip. So people who are interested in specific day can have a look at it.

Here are some user tasks it will support:

- Compare actual temperature to average temperature
- Discover trend of weather
- Lookup temperatures for each day
- Present data for certain time period
- Enjoy the animation of showing trend
- Compare trends of weather across the cities

        Besides the basic design, I add on a slider to allow the user to choose the time period starting at Jul 2024 they want to look at. User can drag the slider left to right to change the time period. You can also switch to another city at the same time so user can compare the trends of temperature in different cities.

(Below are screenshots for Seattle and New York, dates are up to Nov 2nd, 2014)

Climate Change in Three Cities

Select your city: [Seattle ▾]

Play

Nov 2014

Jul 2014   Aug 2014   Sep 2014   Oct 2014   Nov 2014   Dec 2014   Jan 2015   Feb 2015   Mar 2015   Apr 2015   May 2015   Jun 2015

Temperature   Areas shaded red represent the range between daily high and low
Areas shaded gray represent the range between average high and low

Climate Change in Three Cities

Select your city: [New York ▾]

Play

Nov 2014

Jul 2014   Aug 2014   Sep 2014   Oct 2014   Nov 2014   Dec 2014   Jan 2015   Feb 2015   Mar 2015   Apr 2015   May 2015   Jun 2015

Temperature   Areas shaded red represent the range between daily high and low
Areas shaded gray represent the range between average high and low

2014-10-15
Actual range: 69° - 77°
Average range: 58° - 64°

Except the slider, there is also a play button on the top of the slider. When you open the visualization it is empty first. User can click "play" to enjoy the animation of the trend. Charts will be drawn automatically to the user and they can click pause when they want to end at specific date.
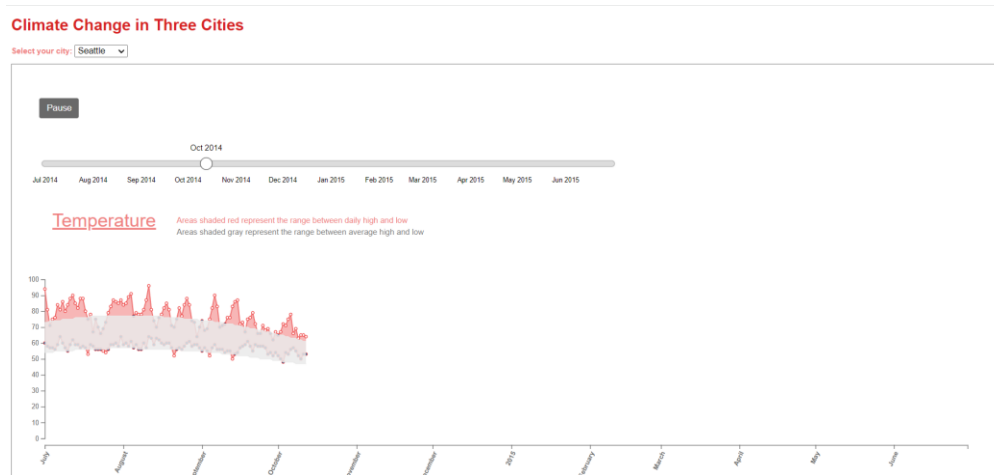
Interface when open the visualization:

Climate Change in Three Cities

Select your city: [Seattle ▾]

Play

Jul 2014

Jul 2014   Aug 2014   Sep 2014   Oct 2014   Nov 2014   Dec 2014   Jan 2015   Feb 2015   Mar 2015   Apr 2015   May 2015   Jun 2015

Temperature   Areas shaded red represent the range between daily high and low
Areas shaded gray represent the range between average high and low

Interface when hover to the play button and the animation is playing:

Interface after user click pause: