# Design Challenge 3 Writing

**Precipitation and Temperature Change of IND from Mid 2014 to 2015**
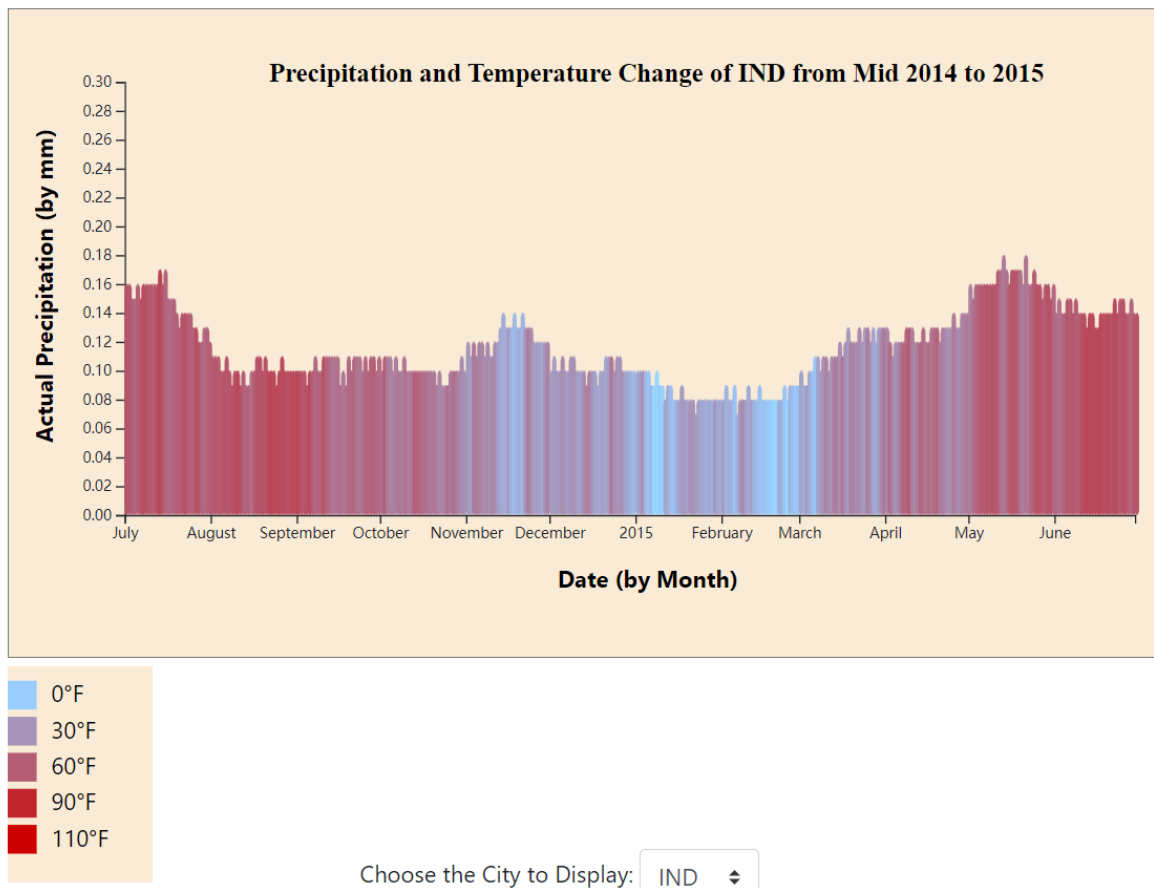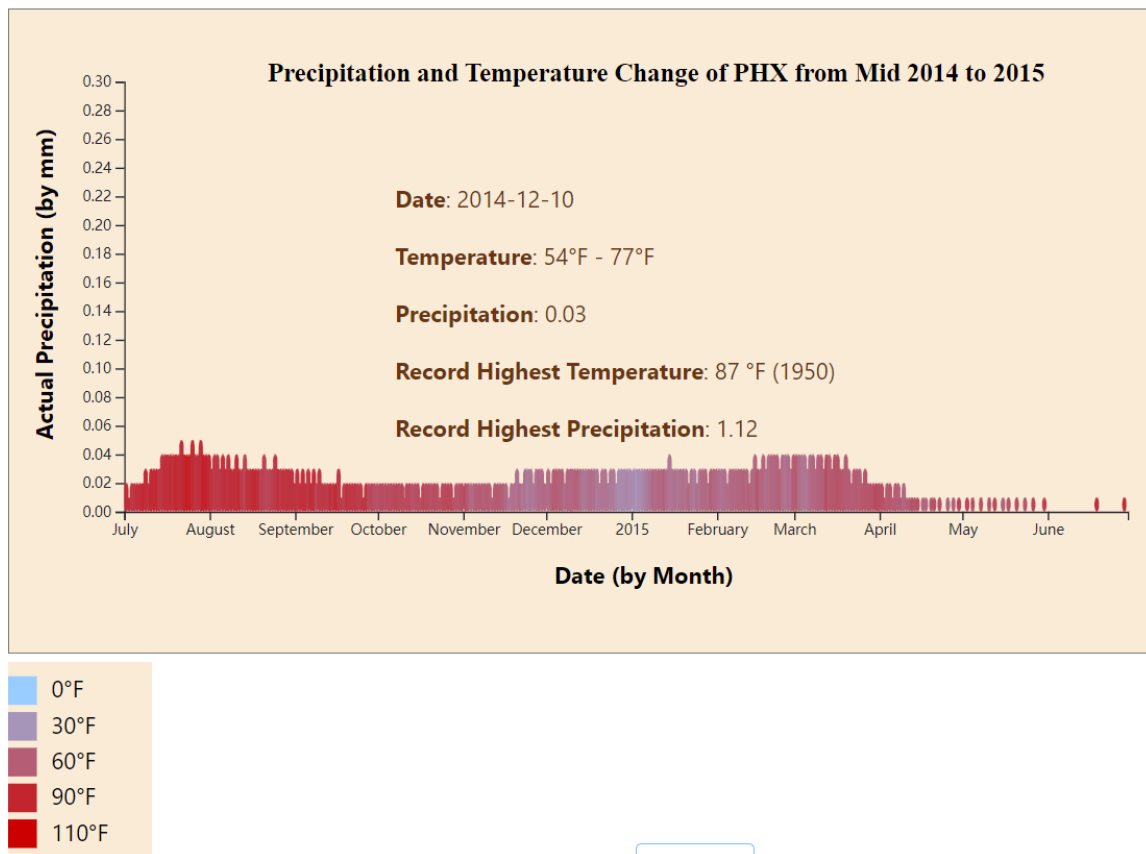


User Tasks:
1. Observe different city's trends and correlations between temperature and precipitation throughout the 1-year period from 7/1/2014 to 6/30/2015.
2. Compare the precipitation at any time spot with the record high on the same day in the past.
3. Compare the temperature (range) at any time spot with the record high on the same day in the past.
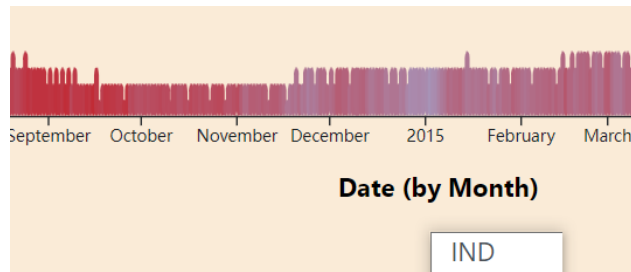
       This design is a non-standard chart that shows each city's correlation between temperature and precipitation throughout the 1-year period from 7/1/2014 to 6/30/2015. On the bottom-center is a filter that is used to select which city's temperature/precipitation data to be shown. On the bottom-left is a legend that shows the color range of temperature from 0°F to 110°F. The mean precipitation level of each day in the year is represented by the line (wave) path on the graph, and the area underneath is colored from blue to red, which is to represent the temperature on that day from cold to warm. The horizontal line along the waves represents

the level of average daily precipitation of the year. Whenever the viewer hover the mouse over one day, there will be a bracket that shows the date, temperature range, precipitation level, record high temperature, and record high precipitation on that day in the past 80 years.
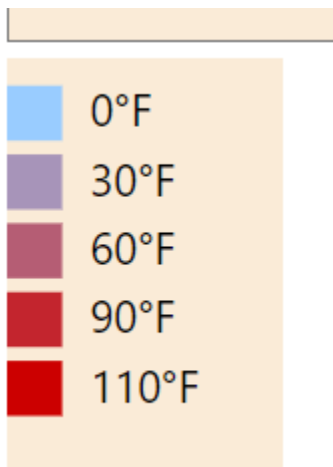
This design is meant to allow viewers to visually compare the relationship between precipitation and temperature for each city, as well as concluding the typical climate pattern of a city according to their locations.



*When hovering the mouse over one bar, the detailed information including record highs are shown right above the mouse.*

**Date (by Month)**

September    October    November    December    2015    February    March

IND
CQT
IND
**JAX**
MDW
PHL
PHX

Choose the City to Display: PHX ⇕

*Can change the city you want to display*

0°F
30°F
60°F
90°F
110°F

*The color scale of temperature to referred from the chart color*