Response Summary:

1. Student Information *

First Name	Ema
Last Name	Westerfeld
Major	Animation
Course *(e.g. CGT 270-001)*	CGT 270-02
Term *(e.g. F2019)*	S2022

2. Email Address *
(University Email Address is required.)
ewesterf@purdue.edu

3. Visualization Assignment *
- Lab Assignment

Analyze

4. Basic Descriptors: for each data component from the Parse Worksheet, identify basic descriptors (basic statistics). Explain *
Years: 1886 - 2016
Punxatawny Phil: 3 outcomes
February Average Temperatures: Average - 33.80284553, Range - [25.33, 41.41]
February Average Temperature (Northeast): Average - 22.69186992, Range - [10.4, 31.6]
February Average Temperature (Midwest): Average - 32.69593496, Range - [20.3, 41.4]
February Average Temperature (Pennsylvania): Average - 26.52276423, Range - [15.2, 35.8]
March Average Temperature: Average - 41.69739837, Range - [35.44, 50.41]
March Average Temperature (Northeast): Average - 32.36747967, Range - [24.2, 43.4]
March Average Temperature (Midwest): Average - 42.5647967, Range - [28.5, 56.3]
March Average Temperature (Pennsylvania): Average - 35.90813008, Range - [24.5, 47.7]
States: 50
Average March Farenheit Temperature by State: Average - 50.99, Range - [24.7, 69.9]
Average March Celcius Temperatureby State: Average - 10.55, Range [-4.1, 21.1]
Ranks: 50
Average March High Farenheit Temperatures for US Cities: Average - 59. 63, Range - [41, 80]
Average March Low Farenheit Temperatures for US Cities: Average - 40.18, Range - [24, 65]
Cities: 51
Average March High Celcius Temperatures for US Cities: Average - 15.353, Range - [5, 27]
Average March Low Celcius Temperatures for US Cities: Average - 4.549, Range - [-4, 18]

5. Categorize: consider what is similar and what is different? Categorize the data. Are the variables categorical (normal, ordinal, or rank). Are they quantitative (discrete or continuous)? Show categories. Explain. *
The Punxatawny Phil data, states, and cities are all ordinal, whereas the rest are nominal.

6. Temporal: is the data streaming data? How is it stored (all at one time, over several years in years, days, minutes, seconds)? Explain. *
All of the data is finished and cannot be altered. It had been collected over a period of several years.

7. Range and Distribution: what is the distribution of the data? Few values, small size, evenly spread, sparse or dense? Explain. *

The numerical data is all fairly similar, as it is temperatures from different locations during February and March.

Evaluate

8. Questions and Assumptions: list at least 3 questions you plan to answer with the data or list the questions if they were provided. Must be complete sentences and end in a question mark. What assumptions are you making? *

Question 1	What years and where did Punxatawny Phil's predictions come true?
Question 2	How do Pennsylvania's temperatures line up with Phil's predictions?
Question 3	What area lines up the best with Phil's predictions?
Assumptions	I assume that the groundhog prediction can be quantified in some way.