### **Response Summary:**

#### 1. Student Information \*

First Name	Rae
Last Name	Fu
Major	Animation and Visual Effects
Course (e.g. CGT 270-001)	CGT 270-004
<b>Term</b> (e.g. F2019)	S2022

#### 2. Email Address \*

(University Email Address is required.) fu345@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  $^{\star}$ 

Year: Ranges from 1886 to 2016.

Punxsutawney Phil: No record-12, Full Shadow-102, Partial Shadow-1, No Shadow-16

February Average Temperature: Average-33.803, Range-25.23 to 41.41

February Average Temperature (Northeast): Average-22.692, Range-10.4 to 31.6

February Average Temperature (Midwest): Average-32.696, Range-20.3 to 41.4

February Average Temperature (Pennsylvania): Average-26.523, Range-15.2 to 35.8

March Average Temperature: Average-41.697, Range-35.44 to 50.41

March Average Temperature (Northeast): Average-32.367, Range-24.2 to 43.4

March Average Temperature (Midwest): Average-42.567, Range-28.5 to 56.3

March Average Temperature (Pennsylvania): Average-35.908, Range-24.5 to 47.7

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. \*

Year: discrete, there are no partial years and Punxsutawney Phil is ordinal since there is a slight ranking between no shadow, partial, and full shadow.

6. Temporal: is the data streaming data? How is it stored (all at one time, over several years in years, days, minutes, seconds)? Explain. \*

Th data is not streaming data, they are stored in one file and user cannot change or update the existing data.

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

There is a not a wide range, it is evenly spread and dense.

## **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	Is there a correlation between having a shadow and the weather?
Question 2	How often is there a shadow throughout the years?
Question 3	Does the temperature have a similar pattern in the northeast and midwest?
Assumptions	The data is accurate and the values for temperature are in the same units (in Fahrenheit)