#### **Response Summary:**

#### 1. Student Information \*

First Name	Grace
Last Name	Combs
Major	Web Developmenet
Course (e.g. CGT 270-001)	CGT 270-003
Term (e.g. F2019)	SP2022

#### 2. Email Address \*

(University Email Address is required.) gcombs@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: 1886-2016, 132 rows

Punxsutawney Phil: No shadow, No record, Partial shadow, Full shadow, 131 rows

February Average Temperature: 25.23-41.41, 123 rows for all temps

February Average Temperature (Northeast): 10.4-31.6 February Average Temperature (Midwest): 20.3-41.4 February Average Temperature (Pennsylvania): 15.2-35.8

March Average Temperature: 35.44-50.41

March Average Temperature (Northeast): 24.2-43.4 March Average Temperature (Midwest): 28.5-56.3 March Average Temperature (Pennsylvania): 24.5-47.7

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 - full years not partial years, can't be divided

Punxsutawney Phil: nominal All temperature categories: interval

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

The data is not streaming but will likely be added to in future years. It is stored in a format over years.

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

The data for the shadow has only a few values that are not evenly spread. The data for temperatures are more evenly spread.

### **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 temperature and shadow result?
Question 2	Does temperature get warmer throughout the years?
Question 3	Does shadow result become more or less likely to be a full shadow or the same over the years?
Assumptions	I am assuming there is not a correlation between temp. and shadow result. I would think temperature may get warmer as years go on, but I am unsure if the amount of time is long enough. I do not think there will be an increase or decrease in likelihood of a full shadow as the years progress.