Response Summary:

1. Student Information *

First Name	Quenton
Last Name	Hostetter
Major	Web Programming and Design
Course *(e.g. CGT 270-001)*	CGT-270-001
Term *(e.g. F2019)*	S2022

2. Email Address *
(University Email Address is required.)
qhostett@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 *
For the string component of Location, if you needed to parse the data you could do so by calculating length, although that would have limited degrees of usefulness since it is location based data in a string format. For the numeric data of Number of Households, Number and Percentage of households with pets, Percentage of Dog and Cat Owners, Cat and Dog owning Households, Mean number of Cats and Dogs per household, and Cat and dog population it would make sense to find the Mean, Standard Deviation, Minimum and Maximum.

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 location is nominal data, as the category of state doesn't have a inherent order. All of the remaining variables are Categorical (rank) based data, as they are numerical values with a clear definition of 0.0. They are quantitative with discrete values. Number of Households (in 1000), Number of Pet Households (in 1000), Dog Owning Households (1000s), Dog Population (in 1000), Cat Owning Households and Cat Population are all similar, as are Percentage of households with pets, Percentage of Dog Owners, Mean Number of Dogs per household, Percentage of Cat Owners and Mean Number of Cats.

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 data, it was a single survey that was recorded all at one time. As such, whilst the recording was taken over a period of time, the data is not temporal due to it being a single snapshot of each state.

7. Range and Distribution: what is the distribution of the data? Few values, small size, evenly spread, sparse or dense? Explain. *
The data has few values due to it being only a single survey of each state, and as such has a a small size overall size. However, the data is quite dense, as it has a lot of information about these populations that was recorded. The data is also evenly spread between the cats and dogs recordings, as they each have an equivalent number of data points.

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 pet is more popular in the US, cats or dogs?
Question 2	Which group of animals has a greater household ratio in the US, Cats or Dogs?
Question 3	Which animal is a pet owner likely to have more of on average, cats or dogs?
Assumptions	That the survey was conducted with research integrity by people unbiased by pet preference. That the recording of the data utilized methods that would accurately represent each population surveyed.