Dognition Draft

Executive Summary

**Introduction**

Dognition is a dog training application that offers subscription base products for dog owners to

train their dogs with different tests at various levels. The ultimate goal in this project is to

identify any distinct characteristics that would increase the number of Dognition tests completed.

**Data Cleaning**

Before attempting any type of analysis, the data provided by Dognition needs to be cleaned; the cleaning process helps to categorized, observed for potential outliers, erase irrelevant or incomplete pieces of data, and ultimately be transformed into digestible information. The start of the cleaning process begins by determining what is necessary to interpret the data, a series of questions developed to provide feedback.

Once we have a list of ideas or questions, we begin by choosing language by which to execute the cleaning process. In this case, Panda, an extension of Python, was used.

* First, the data provided by Dognition is imported into Pandas to begin to understand the values in each category (index).
* Second, an attribute or method for extracting information is used to formulate a type of table, called “DataFrame.”
  + The attribute used first is *.info()* and it is used to see the contents of each column in the table; we can notice missing values and count them to determine if they are irrelevant or not
  + Using the .drop\_duplicates attribute is useful for removing duplicates
  + A third method used is the .describe().T to transpose the column names onto rows for easier readability; unfortunately, the Dognition data is mostly categorical, and transposing the columns would not provide much insight
* Dognition files included two data sets that need to be merged:
  + Each dataframe was listed to find commonalities and eventually merge both sets
* Once the sets were merged, a new dataframe was created as a copy to avoid losing valuable information during the exploratory phase

Exploratory Data Analysis

Conclusions

Recommendations