Capstone Project 1: Project Proposal

- **<u>What is the problem you want to solve?</u>**
  - The problem would be Animal Centers being over populated. To solve the issue, see if they can better distribute their animal population(based on species, age, etc.) amongst other facilities to maximize adoption/minimize the amount of animals left in the shelter/euthanized due to overcrowding(Austin is the largest "No Kill" city in the country), which would also help reduce costs.

- **<u>Who is your client and why do they care about this problem? In other words, what will your client do or decide based on your analysis that they wouldn't have done otherwise?</u>**
  - The Austin Animal Center, and possibly other Animal Centers in the area. Most likely not on a larger scale, as the dataset is from the Austin Animal Center. (I was able to find datasets for other Animal Shelters in Austin)
  - The Animal Center could better distribute their animal population based on the time of year, species, color, health, etc. Ex. "Austin Pets Alive!" has a greater adoption rate for older animals.

- **<u>What data are you using? How will you acquire the data?</u>**
  - Dataset obtained from the Austin Animal Center
    - http://www.austintexas.gov/department/reports-1
  - Dataset from the official City of Austin open data portal
    - https://data.austintexas.gov/Health-and-Community-Services/Austin-Animal-Center-Outcomes/9t4d-g238/data
  - Dataset from Austin Pets Alive
    - https://www.austinpetsalive.org/about/our-numbers/

- **<u>Briefly outline how you'll solve this problem. Your approach may change later, but this is a good first step to get you thinking about a method and solution.</u>**
  - A time series analysis to evaluate if there are any trends, increased adoption rates during certain time periods or events.
  - Find a trend in the animals that get adopted. (Animal Health, Sex, Age, Breed, Color, etc.)
  - Using datasets from different Animal Shelters in Texas, predict which animals have a higher probability of adoption based on location.