# Group\_5\_Animal\_Adoption

## Purpose

The purpose of this analysis is to review data on animals in the Austin Animal Center to better understand the inventory of the animals and to create a model that predicts the outcome whether that is:

- Adoption

- Transfer

- Return to Owner

- Euthanesia

- Died

The Austin Animal Shelter is the largest no-kill animal shelter in the United States and houses 18,000 animals each year. The shelter is an open intake facility where all lost or surrendered animals are accepted. As the city of Austin grows the number of animial intakes will increase making the burden on the shelter greater. The ability of the shelter to remain no-kill is dependent on having available room to house all of the animals and makes understanding the outcome of the animals and the success of the adoption program incential.

Further analysis will also include review of other main factors and their correlation to the outcome. Some of these factors are length of stay, age, color and location of where found.

## Datasource

https://data.world/rdowns26/austin-animal-shelter

The data was sourced from https://data.world which was originally sourced from http://data.austintexas.gov. The data contains information on animal intakes and outcomes of the Austin Animal Shelter over a 3.5 year period.

## Technology

### Data Cleaning and Analysis

Jupyter Notebook (Python, Pandas & sqlalchemy) will be used to clean the Pet Adoption data and to connect to Postgres.

### ERD

We used [https://www.quickdatabasediagrams.com](https://www.quickdatabasediagrams.com/) to create the ERD to show the relationship of the animal\_intake and animal\_outcome tables going to be used in Postgres.

### Database Storage

Postgres will be used to store the animal\_intake and animal\_outcome tables that we created from Jupyter Notebook.

### Machine Learning

We will be using K-Nearest Neighbors, RandomForest, and Gradient Boosting.

### Dashboard

We will use Tableau to create an interactive Story to display our results.