READ ME

The purpose of this python file is to use the CRUD module to view and organize the data base provided by Austin Animal Center outcomes. By using the crud file, it can make seeing the data easier and also puts the information into a Map of the location of each animal in addition to a pie chart saying how much of each animal there is out of the whole lump sum.

The product is here to help give a visual of the data without having to use code to display everything for the user. This is used with the Austin Animal Center outcomes file but can also be a multipurpose tool that can be used with other data sets as well with minor changes to the system.

The module directly works with mongoDB and uses the Dash framework for the visuals. MongoDB is used because it is a data base program that can store and be used to retrieve data easily. By importing mongoDB into the python file, by combining it with the coding language python, the program was made to manipulate the data inside the database. Then the CRUD file that was created to manipulate the database is then used by the jupyter notebook system to give the database a visual UI. This is done by using dash frameworks. Dash frameworks then will take in the database and use the crud file to create visual for the database like a table to display all the raw information in addition to a pie chart. The database is completely interactive so it can also filter the information to see only specific information at a time. By using the information in the database and each element, a map was also added to see were exactly each animal is in the world.

The project was done in parts so it would be easier to see when things would break and get a hold of each new feature added. After creating the CRUD function file, the first thing that was added to the visual UI was the table. At that point it was just a regular simple table that would display all the data. The next thing that was done was to add the map that would strip the information from the dataset and then make a location on a interactive map so the user knows were the animal is. The table then got a upgrade to give it the ability to filter out information. There were 3 buttons added to filter out water rescue, mountain/wilderness rescue and, Disaster/individual tracking. A fourth button was also added to reset the table back to its default screen. The final part that was added was the pie chart. This would show a visual representation of all the breeds in the data list.

The hardest challenge I had to overcome in this products creation was the inability to debug the program. The Virtual machine provided to me had drivers and modules that were not compatible so I could never compile the program. How I found out the program was working was by constant emails with the professor of sending my code back and forth after I kept tweaking it to make sure it worked properly.

Screen Shots 