# CS 340 README

## About the Project/Project Title

Grazioso Salvare Animal Shelter Rescue Assist Webpage

## Motivation

The purpose of this application is to provide an innovative international rescue-animal training company, Grazioso Salvare, with information from five Austin, Texas animal shelters that will assist Grazioso Salvare in identifying dogs that are good candidates for search-and-rescue training. This program takes the information from the MongoDB database and presents it to our clients webpage in a way that is easy to view, easy to understand, and easy to filter.

## Getting Started

Prerequisites:

**Python**: The main programming language for this project.

**Jupyter Notebooks:** A web based interactive computing platform.

**MongoDB:** A NoSQL database used to store the animal shelter data.

**Dash Framework:** A web application framework for python.

## Installation

1. Download the project files.
2. Open Jupyter Notebooks.
3. In Jupyter Notebooks, open the project file, ProjectTwoDashboard(2).ipynb
4. Import required python packages.

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1. Configure the database connection to match your MongoDB instance. Below is an example of mine:

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1. Run the Notebook. When you run the notebook, the dashboard will become accessible at the address provided. Example below:

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## Usage & Code

MongoDB’s flexibility, scalability, and integration with Python make it the perfect model component of development. The integration allows for seamless CRUD operations which allowed me to easily integrate the data and create visual displays that meet the client’s needs and the flexibility allows me to navigate through the database and filter the data based on the client’s needs.

We start by reading the data into pandas DataFrame, this allows us to use the information from the AAC database.

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Here we begin our dashboard layout, including our unique identifier and the Grazioso Salvare logo that leads people to [www.snhu.edu](http://www.snhu.edu) when clicked.

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We follow that by creating our Radio buttons to filter the dataset by Water Rescue, Mountain Rescue, Disaster Rescue, or Reset.

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We then set up the rest of the data table to view the information from the database:

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To see the dashboard and map side by side, we add this:

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Here we set the filter for animal preferences for each of the rescue types:

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Following that, we set up our pie chart using the data from the filters we created to return the breed count of the breeds that match the rescue preferences.

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Lastly, to incorporate the geolocation chart that displays where the animals are located based on the database provided coordinates:A screen shot of a computer code

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**Screenshots**

Included below are screenshots displaying functionality when all features are properly implemented.

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## Contact

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