# CS 340 README Project Two: Animal Shelter

*Use this template to complete your README file. When completing the template, keep the headings as they are so that your document has a clear organization. Remove the italicized prompt text after you have completed each section for a polished final document.*

## About the Project/ Project Two: Animal Shelter

*This application grants users access to the Austin Animal Center database, enabling them to search and filter the database for animals. Users can search by applying filters to locate animals requested by Grazioso Salvare for the creation of a dashboard. Furthermore, this project provides users with the ability to benefit from geolocation mapping, user interaction, and charts to locate and utilize animals for search and rescue missions.*

## Motivation

*The purpose of this program was to assess my proficiency in handling databases and performing data manipulation. Python was selected as the programming language to interact with MongoDB due to its ease of use, manipulation, and compatibility with MongoDB. Moreover, Python offers the advantage of fast compilation with a built-in compiler using Jupyter Notebook.*

## Getting Started

*To initiate the execution of this application, the following steps should be taken:*

*1. Import the CSV file, aac\_shelter\_outcome.csv into Mongo.*

*2. Create both a simple and a complex index to parse the data stored within the document.*

*3. Authenticate both an Admin account and an aacuser account to access the database.*

*4. Next a user should install or have access to Python and execute the program from a notebook.*

*5. Lastly type in the address of the dash and then connect.*

## Installation

*To execute both the .py and the .ipynb files, you will need an up-to-date version of Python.  
Utilize PyMongo, Dash, Plotly, Pandas, and Leaflet libraries to develop Dash functions.*

*Use MongoDB to access the database.*

## Usage

*Use this space to show useful examples of how your project works and how it can be used. Be sure to include examples of your code, tests, and screenshots.*

### Code Example

*Screenshot of running Dash:*

*Graphical user interface, text, application, email

Description automatically generated*

*All working radio buttons:*

*Table

Description automatically generated*

*Displaying change of geolocations and also switch options:*

*Graphical user interface, application

Description automatically generated*

### Errors

*During my initial attempt to run the dash, I encountered an issue where it displayed unprocessed data. To resolve this, I had to modify a "print all" return statement in my animal shelter CRUD module to prevent it from attempting to print all the animals that were returned.*

## Contact

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