# CS 340 README Project 2

*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 Title

*This application grants users access to the CS 340 Austin Animal Center (AAC) database, facilitating the search and filtering of animal records. Users can apply filters to identify animals associated with Grazioso Salvare, the project’s requester, thereby generating a dashboard. Furthermore, the project incorporates geolocation mapping, interactive user interfaces, and data visualization through charts to aid in locating and utilizing animals for search and rescue operations.*

## Motivation

*This program was designed to evaluate my proficiency in database management and data manipulation. Python was chosen as the primary programming language for interacting with MongoDB due to its user-friendly nature, adaptability, and robust compatibility with the database. Furthermore, Python facilitates rapid compilation through its integrated compiler when utilizing Jupyter Notebook.*

## Getting Started

*1. Access MongoDB and import the CSV file* ***aac\_shelter\_outcome.csv****.*

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

*3. To authenticate a user, establish an Admin account and an* ***aacuser*** *account for database access.*

*4. Ensure Python is installed and execute the program from a Jupyter Notebook.*

*5. Finally, enter the dashboard address and establish a connection.*

## Installation

*Python and Jupyter Notebook to run .py and .ipynb files*

*Import PyMongo, Dash, Plotly and Leaflet libraries*

*Access to MongoDB to access 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

*Show what the library does as concisely as possible. Developers should be able to figure out how your project solves their problem by looking at the code example. Make sure that your code is short and concise.*

### Screenshots

***Running Dash:***

*A screenshot of a computer

AI-generated content may be incorrect.*

***Working Radio Buttons:***

*A screenshot of a computer

AI-generated content may be incorrect.*

***Sorting and Updating Geolocation:***

*A screenshot of a computer screen

AI-generated content may be incorrect.*

## Contact

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