Module 7 Assignment ReadMe

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## About the Project

This module includes methods for CRUD related Mongo database operations pretiaining to functionality required by the GS animal rescue project. This module should be able to work with multiple different data types and creates, reads, updates, and deletes information from database documents that are specific to the AnimalShelter csv data available from Grazioso salvare. This project will allow the user to filter and comb through data pertaining to the GS project with respect to animals that could help and be trained in extended capacities, such as disaster relief and search and rescue. It is important to have the proper environment set up or this project will not function correctly!

## Motivation

This project is an assignment for school. The assignment is built throughout the semester without any sort of error checking or communication as to the accuracy of assignment information. The assignment does not contain sufficient information to complete it properly, and the assignments themselves lack the required information or links to properly support the needs of the assignment.

### Why mongo DB

MongoDB can interact with python in many ways that makes accessing database information easy to display and organize. For this reason, this module has been built with MongoDB and displayed using Dash. This enables the application to be displayed on a web page and function intuitively to the users desire. The specifications provided by Grazioso Salvare have been configured in this application to make it easy to navigate and obtain the correct data. Dash utilizes web page elements to combine MongoDB functionality to make the application easy to use and manipulate.

### Challenges

While creating this project, it should be noted that the framework used must be up to date, or dash will experience errors displaying the correct data and getting information from the MongoDB database. If the user does not configure the correct MongoDB authentication credentials, they will be unable to access the database and will not be able to use the application for the intended purpose. Some challenges encountered include incompatible framework supplied by jupyter notebook, which prevents the display of data in some cases.

### Usage

To use this project, the user must enter the correct database authentication information, specifically the user, password, port, host, db, and collection variables. After running the project in jupyter notebook, they will be able to select the link at the bottom of the page and open the web page that displays the database and the correct information.

A screenshot of a computer

Description automatically generated

The user is able to select one of the 4 radio options to filter between different dog breeds,ages,and statuses that are suitable for certain tasks and able to be trained. Hopefully, this project will make finding trainable dogs easier and assist in life saving work that would otherwise be difficult for humans.