README for CS 340 Project Two Dashboard

**Grazioso Salvare Interactive Dashboard**

Grazioso Salvare requested an interactive dashboard that connected to the Austin Animal Center’s database of animals to see if any animals could be adopted and trained for search and rescue. Since the database is a MongoDB, we used Python to create a simple dashboard complete with a data table, pie chart, and map detailing specific animal breeds based on Grazioso Salvare’s different search and rescue requirements. Here is an example of what was being asked to produce:

A screenshot of a computer

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**Getting Started**

To begin, I gained access to the AAC database with unique login credentials for Grazioso Salvare. I used Dash, an open-source library used to create dashboards, as well as Python and mongosh, or the Mongo shell. Jupyter Notebooks was also used in debugging and replication of this dashboard.

**Installation**

Download the zip file submitted into project two. Once unzipped, users should have access to two files: ‘aac\_crud’.py as well as the Jupyter Notebook containing the dashboard. There is also an image file for Grazioso Salvare’s logo. Downloading all three files, and opening up and running the Jupyter Notebook file should produce a fully functional dashboard.

**Usage**

The initial dashboard is set to display the entire AAC database. Here is what it should look like:

A screenshot of a computer

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Clicking on the dropdown menu, users should see the different categories of search and rescue types:

A screenshot of a computer

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Clicking on one of these selections, the data table will refresh with the specific category of search and rescue dogs. The pie chart below will also update. Here is what the pie chart currently looks like for ‘Mountain Rescue’:

A screenshot of a map

Description automatically generated

Notice the interactive map. A row must be selected for that animal’s information to correctly show. Here is a screenshot showing the pie chart for all dogs, with one dog selected, showing its location on the map:

A screenshot of a map

Description automatically generated

Tests included how the dashboard, pie chart, and map reacts to different dropdown menu selections being used, as well as no selections being made. The default for dropdown menu is set to display all animals if no selection is made. Users can also click the “All Animals” option in the dropdown menu to effectively ‘reset’ the dashboard of any filters. If no row is selected, the map should still display, but no pointer will be shown.

**Roadmap / Features**

As of now, this first version simply gives Grazioso Salvare what was requested: the ability to filter and view animals that fit the specifications of breed, age, and sex for each search and rescue type. Additional features that could be added later include:

* Allow users to select and edit the data in the table and save changes within the database
* Allow users to delete data from the data table
* Allow users to select multiple dogs at once and show them in relation to each other in the map

**Contact**

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