

1. Database and CRUD Module

- **Database:** MongoDB
- **CRUD Python Module File:** CRUD-Python-Module.py
- **CRUD Class Name:** CRUD

The application uses a custom Python module (CRUD-Python-Module.py) to handle all database operations, connecting to MongoDB using the aacuser credentials. The initial data table load uses the db.read({}) method to retrieve the entire collection.

2. Dashboard Interface (ProjectTwoDashboard.ipynb)

The dashboard is built using the Dash framework within a Jupyter environment.

Branding:

- **Logo:** The Grazioso Salvare logo (Grazioso Salvare Logo.png) is included in the dashboard layout.
- **Unique Identifier:** The dashboard includes a unique identifier for the creator: **Lyth Hammad.**

Widgets and Functionality:

- **Interactive Data Table:** The table features user-friendly functions including filtering, multi-column sorting, and pagination (10 rows per page).
- **Interactive Filters (Radio Items):** Four radio buttons allow the user to select the desired rescue profile or reset the view.
- **Dynamic Charts:** Both the Geolocation Map (using dash-leaflet) and the Pie Chart (using plotly.express) dynamically update based on the data displayed in the interactive table.

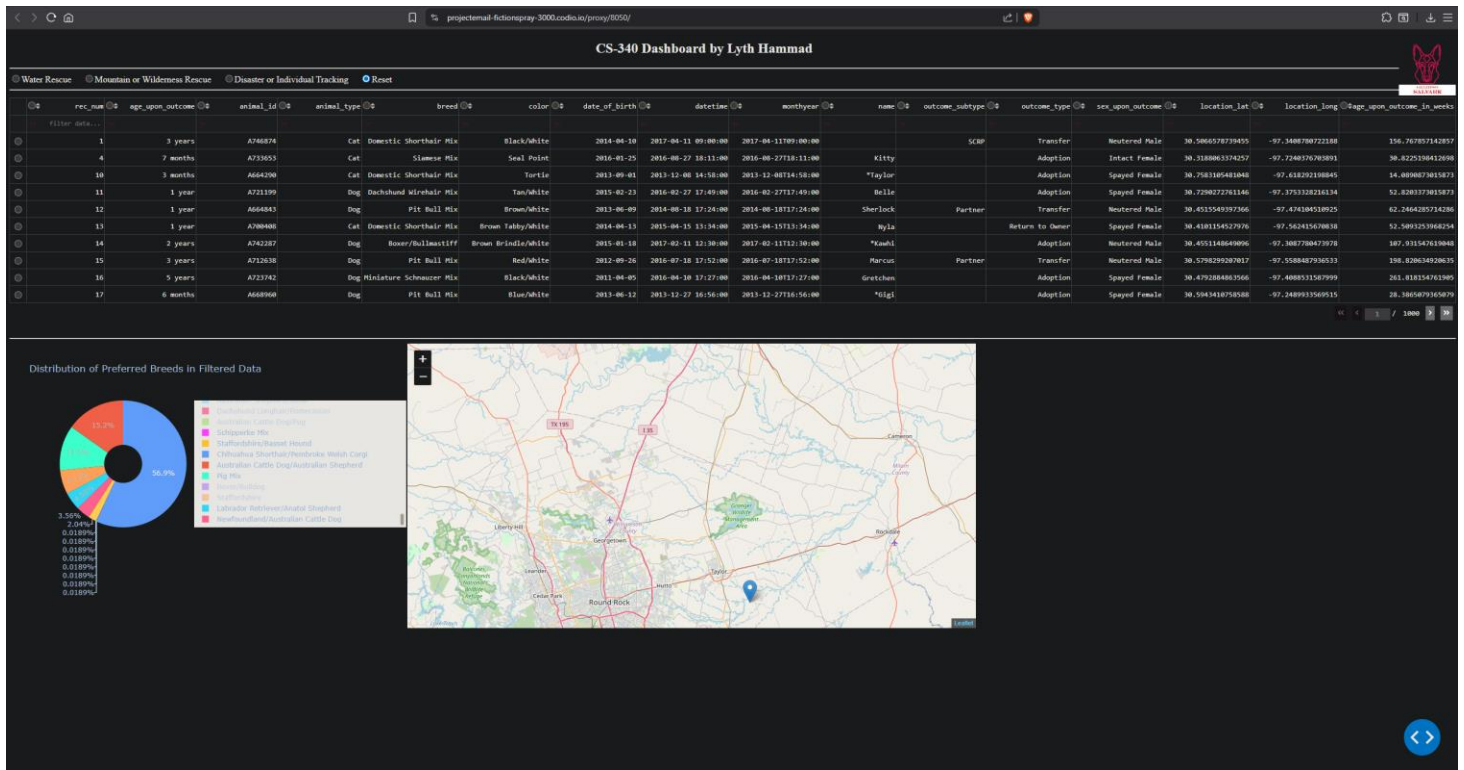
Filter Criteria and MongoDB Queries

The interactive filtering functionality is implemented in the update_dashboard callback, translating the Grazioso Salvare criteria into MongoDB queries.

Rescue Type	Animal Type	Age (Weeks)	Sex Condition	Breeds (MongoDB \$in array)
Water Rescue	Dog	26 to 156	Intact Female	Labrador Retriever Mix, Chesapeake Bay Retriever, Newfoundland
Mountain/ Wilderness	Dog	26 to 156	Intact Male	German Shepherd, Alaskan Malamute, Old English Sheepdog, Siberian Husky, Rottweiler
Disaster/ Tracking	Dog	20 to 300	Intact Male	Doberman Pinscher, German Shepherd, Golden Retriever, Bloodhound, Rottweiler
Reset	ALL	ALL	ALL	ALL

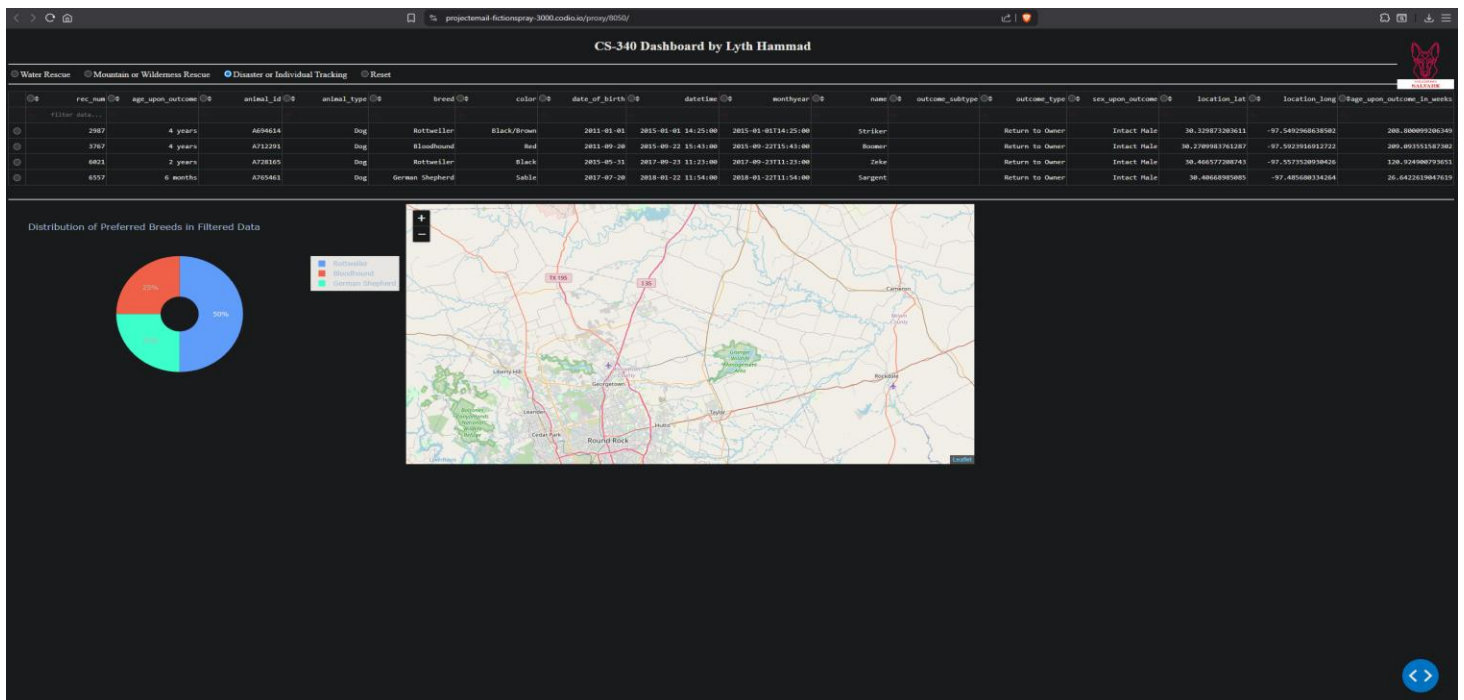
1. Dashboard Starting State (Reset Filter Applied)

- Screenshot showing the dashboard with the 'Reset' filter selected, displaying all animal types, the logo, and the identifier.



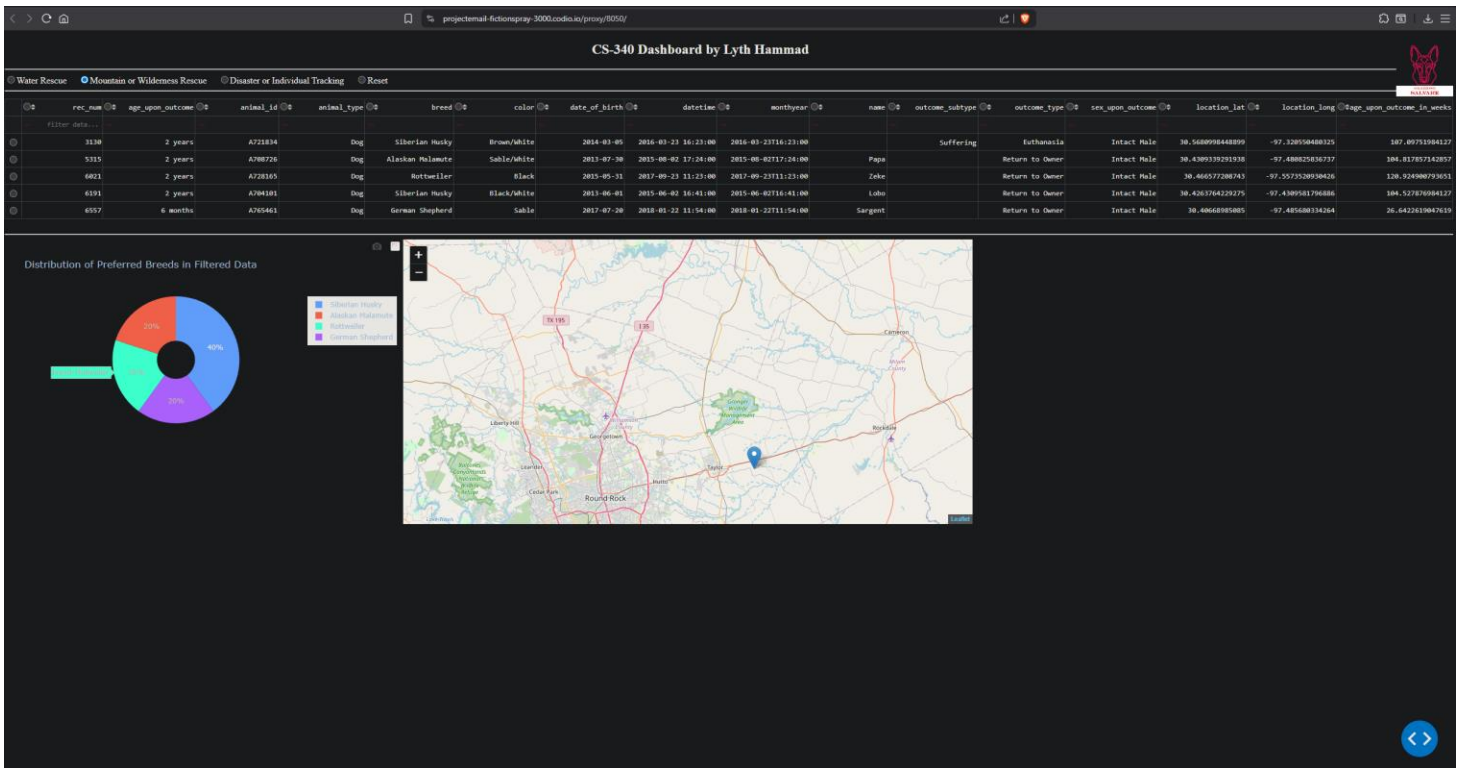
2. Water Rescue Filter Applied

- Screenshot showing the dashboard with the 'Water Rescue' filter selected, displaying only dogs matching the criteria, and showing the updated charts.



3. Mountain or Wilderness Rescue Filter Applied

- Screenshot showing the dashboard with the 'Mountain or Wilderness Rescue' filter selected, displaying only dogs matching the criteria, and showing the updated charts.



4. Disaster or Individual Tracking Filter Applied

- Screenshot showing the dashboard with the 'Disaster or Individual Tracking' filter selected, displaying only dogs matching the criteria, and showing the updated charts.

