Southern New Hampshire University

CS 340 Dashboard Specifications Document

Client Background

Grazioso Salvare identifies dogs that are good candidates for search-and-rescue training. When trained, these dogs are able to find and help to rescue humans or other animals, often in life-threatening conditions. To help identify dogs for training, Grazioso Salvare has reached an agreement with a non-profit agency that operates five animal shelters in the region around Austin, Texas. This non-profit agency will provide Grazioso Salvare with data from their shelters.

Grazioso Salvare has noted that there are specific types and breeds of dogs to train. For instance, search-and-rescue training is generally more effective for dogs that are no more than two years old. Additionally, certain breeds of dogs are proficient at different types of rescue, such as water rescue, mountain or wilderness rescue, locating humans after a disaster, or finding a specific human by tracking their scent.

Grazioso Salvare is seeking a software application that can work with existing data from the animal shelters to identify and categorize available dogs. Global Rain has contracted for a full stack development of this application that will include a database and a client-facing web application dashboard. Grazioso Salvare will use this dashboard to interact with and visualize data from a MongoDB database. The dashboard must be a user-friendly, intuitive interface that will reduce user errors and training time.

Dashboard Branding

To meet Grazioso Salvare's branding requirements, the company has requested the inclusion of the following components somewhere on the dashboard:

1. The Grazioso Salvare logo. The company has requested that this logo include a URL anchor tag to the client's home page: www.snhu.edu.
2. A unique identifier (text or image) containing your name. Grazioso Salvare would like to credit you as the creator of the dashboard.

Required Dashboard Widgets

Grazioso Salvare is requiring the following widgets for the dashboard interface:

- Interactive filter options (buttons, drop-downs) to filter the Austin Animal Center Outcomes data set by:
    - Water Rescue
    - Mountain or Wilderness Rescue
    - Disaster Rescue or Individual Tracking
    - Reset (returns all widgets to their original, unfiltered state)
- A data table which dynamically responds to the filtering options
- A geolocation chart **and** a second chart of your choice (such as a pie chart) that dynamically respond to the filtering options

Figure 1 is a mockup showing each of these widgets in a sample layout. The specific layout of the dashboard you design may vary, as long as all widgets are included. The mockup displays "radio items" as the interactive filtering options. However, other interactive options, such as a drop-down menu,

could be equally valid. It is important to set up the dashboard and interactive filtering options so that they are intuitive to navigate.

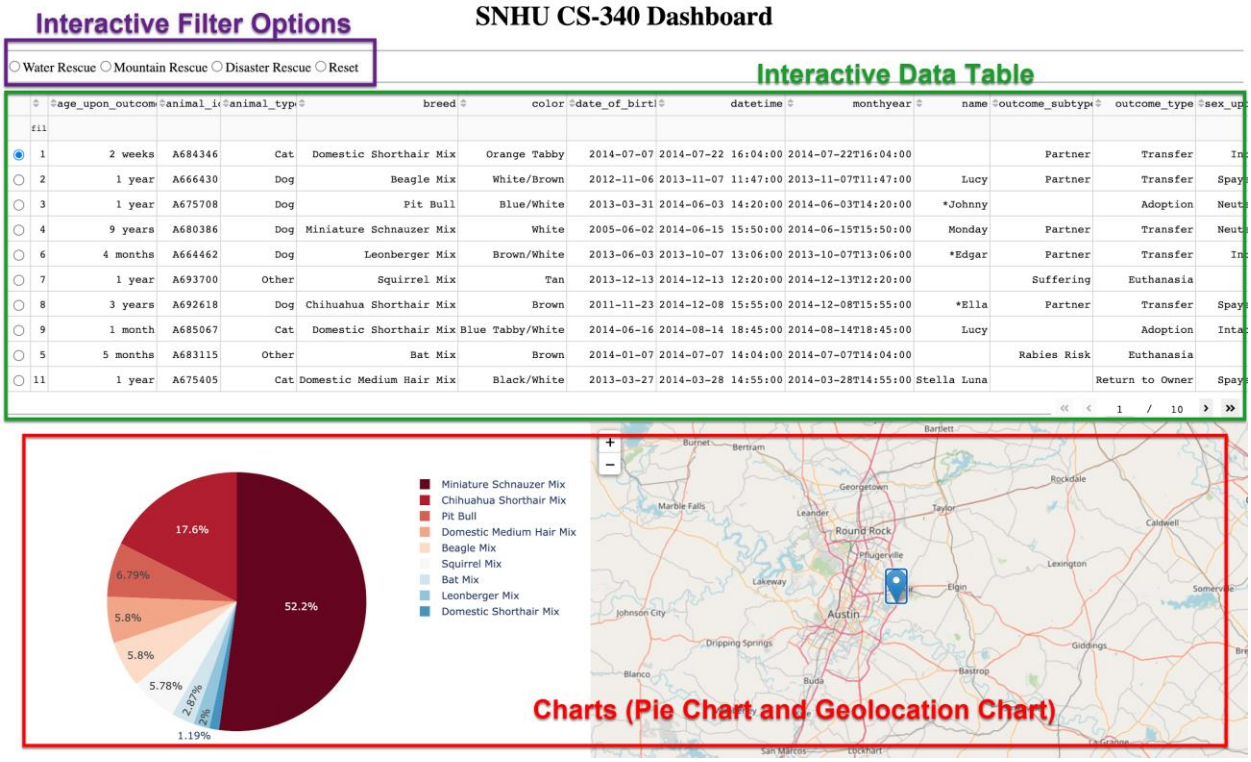

Figure 1: Mockup of Unfiltered Grazioso Salvare Dashboard Layout

Interactive Filter Options: Required Functionality

Grazioso Salvare needs the ability to filter the data and have the dashboard widgets respond to this data. The interactive options you create should run queries on the database to gather the required data. The four interactive options must allow a dashboard user to retrieve data related to the types of rescue Grazioso Salvare performs:

- Water Rescue
- Mountain or Wilderness Rescue
- Disaster or Individual Tracking
- Reset (returns all widgets to their original, unfiltered state)

When one of the interactive options is selected, the interactive data table, the geolocation chart, and your second chart must update to show the selected data. In Figures 2 and 3, you can see how the table and charts have been updated based on the chosen interactive option. In this example, a pie chart was chosen as the secondary chart.

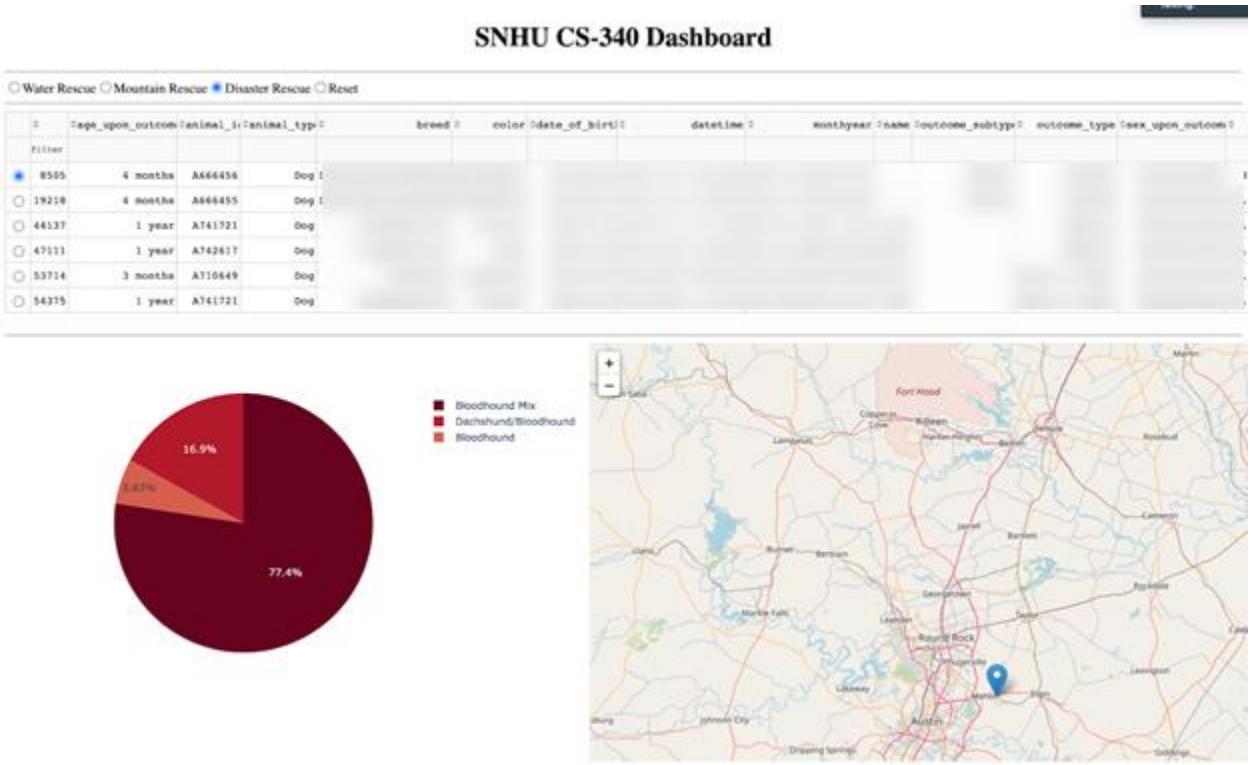

Figure 2: Mockup of Grazioso Salvare Dashboard Filtered to Display Disaster Rescue Dogs

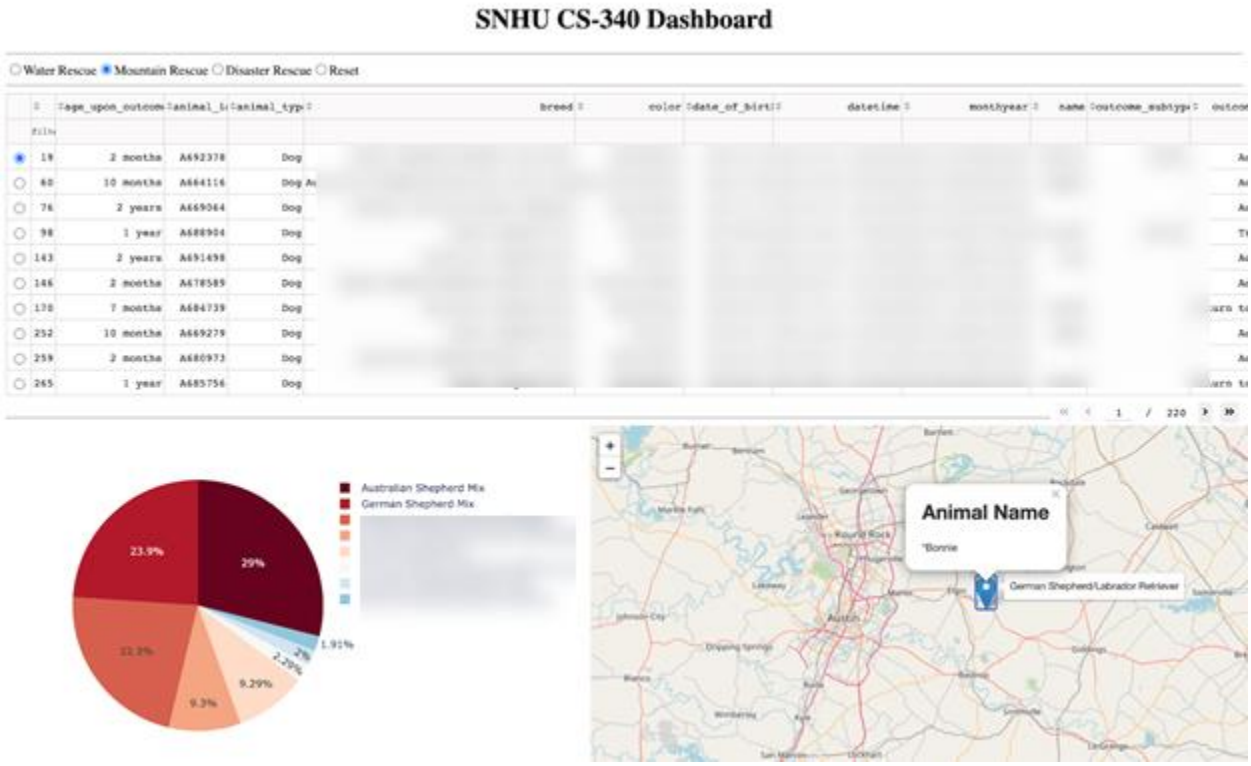

Figure 3: Mockup of Grazioso Salvare Dashboard Filtered to Display Mountain Rescue Dogs

Rescue Type and Preferred Dog Breeds Table

Grazioso Salvare has provided the following table based on their research on and experience with training rescue dogs. Reference the table provided below to guide you in writing the queries for the interactive option functionality.

Rescue Type	Preferred Breeds	Preferred Sex	Training Age*
Water	Labrador Retriever Mix, Chesapeake Bay Retriever, Newfoundland	Intact Female	26 weeks to 156 weeks
Mountain or Wilderness	German Shepherd, Alaskan Malamute, Old English Sheepdog, Siberian Husky, Rottweiler	Intact Male	26 weeks to 156 weeks
Disaster or Individual Tracking	Doberman Pinscher, German Shepherd, Golden Retriever, Bloodhound, Rottweiler	Intact Male	20 weeks to 300 weeks

***Note:** In the data set, there are two variables for age. It will be easier to use the variable *age_upon_outcome_in_weeks* to construct your queries. Age calculations are approximations.