# CS 340 Project 2 README

**Name: Cooper Brien**

**Required Functionality:**

The functionality required for this project was to create a dashboard application that read data from a database and displayed it in an easy to read and user-friendly way. This dashboard includes filtering options to filter out dogs that specialize in certain rescue efforts. Contained on this page is a data table, a pie chart that shows all of the breeds displayed on the table, a map showing the location of the selected dog, and four radio buttons to provide easy filtering capabilities.

The tools used to achieve this were Jupyter Notebook for testing the code and the Dash framework for building the application. The dash framework has many built in functionality including the buttons that were used, the data tables, and the map that was used in the application. MongoDB was also used to store the data that was accessed through the application. To complete this project, I had to create a CRUD file that could read, write, update, and delete data from the database. Then I used that functionality to display the data on the Dashboard. I then implemented various widgets to make the Dashboard more user-friendly and allow the Dashboard to be more interactive.

Many of the challenges I faced were from the remote access that we had to use during this project along with some issues I encountered with Jupyter Notebook. In one instance, Jupyter notebook refused to open. I also had to adjust some of the imports. In the initial code, it imports Jupyter Dash which has now become deprecated. Because of this I had to use the base Dash framework and make a few other edits to the code to have it work with Jupyter Notebook.

A computer screen shot of a dog

Description automatically generated

RESETA screenshot of a computer

Description automatically generated

Water

A screenshot of a computer

Description automatically generated

Mountain

A screenshot of a computer

Description automatically generated

Disaster

A screenshot of a computer

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