# CS 340 README

## About the Project/Project Title

Global Rain Project 2

Global Rain wants to incorporate an interactive dashboard for the database.

## Motivation

Grazioso Salvare wants the dashboard to be user-friendly. The dashboard will incorporate filtering options, show geolocation, and allow for an interactive map.

## Getting Started

This READ-ME assumes a Linux OS is being used.

MongoDB is the database system this system was built around.

This system uses a CRUDE python module to access and interact with the database.

The dashboard used will interact with the database through the CRUDE module.

The dashboard is implemented using Jupyter Dash.

A geolocation map will also be implemented.

The map is implemented using leaflet.

Any graphs were produced using plotly.express

A pie chart was able to be built using dash\_table

## Installation

This project assumes a Linux OS.

MongoDB will need to be installed.

The CRUDE file will need to have been set up correctly and placed within the filesystem being used.

The dashboard should be able to run and function once downloaded.

## Usage

Once the database, CRUDE file, and dashboard have been downloaded the program should run as intended after opening the dashboard.

Once the dashboard is open and the user’s credentials have been entered, they should have access to the database.

Users will be able to use the interactive chart to add, remove, and edit information within the chart.

A pie chart is also created to allow for the easy visualization of visual data.

An interactive map showing the locations of the animals will be available through using information from the database.

**Resources:**

Pie chart:

https://plotly.com/python/pie-charts/

Leaflet:

https://dash-leaflet.herokuapp.com/

dash.plotly(interactive):

https://dash.plotly.com/datatable/interactivity

dash.plotly(core):

https://dash.plotly.com/dash-core-components

## Contact

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