# CS 340 README

*Use this template to complete your README file. When completing the template, keep the headings as they are so that your document has a clear organization. Remove the italicized prompt text after you have completed each section for a polished final document.*

## About the Project/Project Title

*Provide a little information about your project or an overview that explains* ***what*** *the project is about.*

The Animal Shelter Dashboard Python project is a tool to read data from a mongo database and display in a user-friendly manner. As of right now, the database and collection are hardcoded into the Python module—database: aac, collection: animals. This tool can be used from the Jupyter Notebook. The username and password are also hardcoded.

## Motivation

*This is a short description of the motivation behind the creation and maintenance of the project. This should explain* ***why*** *the project exists.*

Being able to create and read data from a mongo database can be much easier for an engineer as opposed to a client for a company. This project will make it much easier for a client user to retrieve the data they need.

MongoDB was used because it is easy to incorporate using Python. The same can be said for Dash Plotly. Dash makes use of callback functions to easily control when components are updated. The Jupyter Notebook is used to add everything together. We import our crud functions and Dash using the Jupyter Notebook to run and serve our dashboard.

## Getting Started

*This is an example of how you may give instructions on setting up your project locally: “To get a local copy up and running, follow these simple example steps.”*

Use the following steps get everything setup:

* Login to Apporto
* Make sure you have a copy of the mongodb-env.txt file on your desktop
* Make sure you have a user for the aac database
* Add your data files to /usr/local/datasets - .json or .csv file types
* You will need mongo shell installed. Test this by opening a terminal and enter the following command:
  + mongosh – exit once done by entering “exit”
* Now you will need to import your datasets:
  + Open a terminal and cd into /usr/local/datasets
  + Execute this command: mongoimport --username="${MONGO\_USER}" --password="${MONGO\_PASS}" --port=${MONGO\_PORT} --host=${MONGO\_HOST} --db “name of your database”--collection “name of your collection”--authenticationDatabase admin --type “file type goes here”--headerline --drop ./”filename and extension goes here”
* Go to your Jupyter Notebook and open the file ProjectTwoDashboard.ipynb
* Click on the code and click run
  + Scroll to the bottom of the notebook and click the server link
  + From here you will see a dashboard displaying all the data
  + The logo image will link you to the snhu website
  + You can filter the dashboard by using the dropdown menu
  + You can reset the filter by clicking the reset button

## Installation

*List the tools you need to use the software and how to install them.*

You will need the following tools for this project:

* MongoDB/Shell
  + MongoDB is open source. You can download it for free online
* Python Jupyter Notebook
  + Jupyter Notebook is also open source and free to download online

You may need to update the versions for dash and jupyter-dash

* Versions used for development:
  + Dash: 2.4.0
  + Jupyter-Dash: 0.4.2

Documentation Used:

* https://dash.plotly.com/

## Usage

*Use this space to show useful examples of how your project works and how it can be used. Be sure to include examples of your code, tests, and screenshots.*

The following will be screenshots of code and executions.

### Code Example

*Show what the library does as concisely as possible. Developers should be able to figure out how your project solves their problem by looking at the code example. Make sure that your code is short and concise.*A screenshot of a computer

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### Tests

*Describe and show how to run the tests with code examples.*

The script will ask for the following input: username, password, data. You will enter all required information and the script will create the entry and then display what it looks like from the mongo database. Click on the code and click run.

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## Roadmap/Features (Optional)

*Provide an open issues list of proposed features (and known issues). If you have ideas for releases in the future, it is a good idea to list them in the README. What makes your project stand out?*

1. Script could be updated to split up create and read function calls. Example: User wants to only read what is in the database, without creating anything*. - DONE*

## Contact

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