# CS 340 Create and Read in Python

## About the Project/Project Title

This project serves as a tracking application for an animal shelter to store, read, update, and delete records from animals who have stayed at the shelter.

## Motivation

The Idea behind the project is to make it simple for users to maintain records of residents of an animal shelter according to local ordinance.

## Getting Started

Creating a local version of this project can be done by creating a MongoDB database with all the columns required to meet project standards. Once that is done, create an authenticated user profile that will be used to interact with the database through the Python language. The first two steps are done in a Linux terminal for this project. After that, navigate to the Jupyter Notebook IDE, create a new Python file and create the object class to access using the created user accounts, then create a new .ipynb file to write the executables for testing and usage. Be sure that, when you are writing the code to connect to the database that your authenticated user belongs to the correct database, and that the formatting and data types are correct.

## Installation

In order to reproduce this project, you need MongoDB with the Python drivers that have the ability to interact with MongoDB. MongoDB can be downloaded from their website. The other necessary tools are the Jupyter Notebook IDE and Python language libraries.

## Usage

### Code Example

*A screenshot of a computer program

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### Tests

In order to run the test code, the only thing that needs to be done is to input values into the testAnimal dictionary. You can then input the values into the read, update, and delete functions according to their parameters specified in the Python file. The read function takes a key/value pair for for the object you are looking for, I chose to use the id since it should be unique. The update takes two key/value pairs. The first is to identify the object to update (again the id), and the second is the key/value pair that should be updated. The delete function takes the key value pair for the object to delete. I recommend using a key that should be unique, such as the id to avoid deleting unintended objects.

A screenshot of a computer program

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### Screenshots

Below are screenshots of the AnimalShelter.py file that I used to manipulate the data. You will need to fill in your own authentication and connection values for it to work on your system.

A screenshot of a computer code

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Below, you can find the import execution to bring the data into the database.

A screenshot of a computer

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Below, you can find the commands to create a new authenticated user, which you would use in your python file to connect to the database.

A computer screen shot of text

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## Contact

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