# CS 340 README Assignment

## About the Project/Milestone 4-1: Create and Read in Python

This is a project to familiarize students with the basics of databases and CRUD concepts.

## Motivation

This project was created with the intent to allow the Austin Animal Clinic to store digital records about their patients in an organized and accessible manner.

## Getting Started

In order to get a local copy up and running you must first open a command prompt, navigate to the usr/local/datasets folder. Next you simply open the Jupyter Notebook and Navigate to Animal Shelter folder and double click the file titled “Python\_testing\_script.ipynb”. You should see a scene like the one in the screenshot below.

## Installation

You will need Jupyter Notebook, Python, and mongo DB in order to run this project. These programs can be found online through their respective websites and can downloaded by following the installation instructions provided by the OEM.

## Usage

### Code Example (Highlighted in cyan)

class AnimalShelter(object):

def \_\_init\_\_(self, username, password):

self.client = MongoClient('mongodb://%s:%s@localhost:54011/?authMechanism=DEFAULT&authSource=AAC'%(username,password)

self.database = self.client['AAC']

# Create method

def create(self, data):

if data is not None:

self.database.animals.insert(data) # Data should be a dictionary

print("animal added succesfully")

return True

else:

raise Exception("Nothing to save due to parameter being empty")

# Read method

def read(self, data):

return self.database.animals.find\_one(data) # Returns a single document as a python dictionary

This code is from the animal\_shelter.py file that the Python\_testing\_script.ipynb uses. I had setup an admin and user account to access this DB and you can see in the initialization method that we pass in the username and password. Developing the Create and Read methods were straight forward since I already knew the functionality based on previous modules work with the command prompts in mongo. I did have a bit of a struggle in using the python testing script in that the cache wasn’t allowing the create method to return true which led to having to log out and log back in to reset it but it worked after that.

### Tests

### All that needs to happen once the ‘Getting started’ section is complete is to select the top box and click the run button at the top for each step. You can edit the record in the third box prior to running that line. Screenshots:

*![Graphical user interface, text, application, email

Description automatically generated]()*

## Contact

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