# CS 340 README

## About the Project/Project Title

This project will be used as a software application that can work with existing data from the animal shelters to identify and categorize available dogs. This project will include a database and a client-facing web application. Users of this software will have access to said database.

## Motivation

This project exists because our client, Grazioso Salvare, identifies dogs that are good candidates for search and rescue training. After training, these dogs can find and help rescue humans or other animals, often in life-threatening conditions. This software will be used to help identify available dogs.

## Getting Started

To get a local copy of this project up and running, simply change the USER, PASS, HOST, PORT, DB, and COL variables of the CRUD object to reflect your MongoDB environment needs. Be sure you have an Admin user account so you can properly access your database.

When developing the “Create” portion of the module, I used the “insert\_one()” method to insert a new record into the database. For the “Read” portion of the module, I used the “find()” method to look up the argued query.

When developing the “Update” portion of the module, I used the “update\_many()” method to update records within the database. For the “Delete” portion of the module, I used the “delete\_many()” method to delete records within the database.

## Installation

For this software to work, Python with a version of 3.x+ is required. Simply make sure your version is up to date by visiting [www.python.org](http://www.python.org).

You will also need to have a virtual Python environment installed, along with the Pymongo driver to run this software. For this software, I personally used the Jupyter python notebook.

## Usage

This software will be used to Create, Read, Update, or Delete documents in your respective database.

### Code Example

Below are examples of our “Create”, “Read”, “Update”, and “Delete” methods:

*Create Method (Returns True if insertion was successful)*

A computer code with text

AI-generated content may be incorrect.

*Read Method (Returns a list of the read documents)*

A screen shot of a computer code

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*Update Method (Returns a count of updated items)*

*A screen shot of a computer code

AI-generated content may be incorrect.*

*Delete Method (Returns a count of deleted items)*

*A computer screen shot of a computer code

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### Tests

The following tests can be further explored in the **Screenshots** section of this README.

***Create***

Using the above “Create” method as an example, you can run tests with this software by using an example animal record. Once you have your example record (in this case, “animal\_data”), execute the test like the example execution below:

create\_result = shelter.create(animal\_data)

print(“Create result: “, create\_result) # Prints out the result from the create method

***Read***

Using the above “Read” method as an example, you can run tests with this software by using an example query like the one below:

query = {“animal\_type”: “Dog”}

read\_result = shelter.read(query)

print(“Read result: “, read\_result)

***Update***

Using the above “Update” method as an example, you can run tests with this software by using an example query like the one below:

shelter.update({“name”:”Dwayne”}, {“name”:”Sarge”})

***Delete***

Using the above, “Delete” method as a example, you can run tests with this software by using an example query like the on below:

shelter.delete({“name”:”Mickey”})

### Screenshots

*Importing a CSV File in MongoDB*

**A screenshot of a computer screen

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*Creating a New User and Logging In*

**A screenshot of a computer

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**A screenshot of a computer

AI-generated content may be incorrect.**

*Importing our CRUD module and creating an example animal record*

A screenshot of a computer

AI-generated content may be incorrect.

*Proper execution of our “Create” and “Read” methods*

*A screenshot of a computer

AI-generated content may be incorrect.*

*Proper execution of our “Update” and “Delete” methods*

*A screenshot of a computer

AI-generated content may be incorrect.*

## Contact

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