# CS 340 – Project One README

## About the Project/Project Title

The project aims to identify dogs that are quality candidates for search-and-rescue training given datasets from 5 different animal shelters.

## Motivation

By improving the identification methods for ideal canine candidates, this project will contribute to rescue efforts for those lost at sea and in the mountains. It is critical in the first hours of disaster that search-and-rescue teams be able to locate individuals and ensuring that their canine partners are prepared for the job is paramount.

## Getting Started

1 – Insert CSV file using MongoDB import tool

2 – Create a user account with admin read/write access to ONLY the new database from imported CSV

3 – Develop a Python Module (.py) with CRUD functions (create, read, update, and delete)

4 – Develop a Jupyter Notebook Test Script (.ipynb) that tests each CRUD function with test\_data

## Installation

Python

Jupyter Notebooks

Linux

PyMongo

MongoDB

## Usage

As seen in the example below, the first line of the source code imports the MongoClient from the PyMongo driver. The PyMongo driver was used because Python is an excellent language for performing operations over large datasets. After importing libraries and drivers, multiple variables are initialized for the MongoClient login. After connecting to the database, the methods for CRUD operations are present, it is important to note that all the CRUD methods utilize the self.collection convention to make the code modular and easier to read, being able to handle ANY database name that is inputted for analysis. The create method uses the insert\_one() function to create a new document. The read method uses the find() function to pull up any documents that match the key:value pair of the data parameter. The update() function takes an extra parameter for the “$set” pair of data that should replace what is found in the query. The delete() and delete\_all() methods use the delete\_one and delete\_many functions, respectively, to remove documents as needed by the user.

### Code Example

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### Tests

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### Screenshots

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A screenshot of a computer screen

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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?  
  
Note: This section is optional for the purposes of this assignment. If you choose not to fill out this section, remove it from your final README file.*

## Contact

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