# CS 340 README Template

## About the Project/Project Title

*This application allows a user access to a database of animals perform Create and Read documents (C and R in CRUD action) use the PyMongo driver to create CRUD functional access to document collection and utilize MongoDB. Also the python code will be tested via Jupyter note.*

## Motivation

*This project was designed to insert and read data in animal csv data base inside MongoDB. It helps to improve understanding of databases and manipulating the data as well as testing to make sure the data is inserted and read correctly.*

## Getting Started

1. *Upload the Austin Animal Center (AAC) Outcomes data set into MongoDB by importing a CSV file using the MongoDB import tool & create aacuser via MongoDB*
2. *Create Python code for C and R in CRUD*
3. *Test the code via Jupyter*

## Installation

*-Current Version of \*Python\* https://www.python.org/downloads/*

*\*Pymongo\* after installed python use PowerShell or gitBash“pip install pymongo”*

*\*Jupyter Notebook\* after installed python use PowerShell “pip install Jupyter”*

*\*MongoDB\* https://www.mongodb.com/try/download/community*

## Usage

To begin this follow along as instructed below:

### Import and create user

1. You need to import *Austin Animal Center (AAC) Outcomes data set into MongoDB by importing a CSV file using the MongoDB import tool.*
2. A computer screen shot of a computer code

   Description automatically generated*use mongosh then switch to admin db to create aacuser and assigned roles, make sure to verify account after created by login then use db.runCommand({ConnectionStatus:1})*

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### Python Code

1. Impor t necessary tools (pymongo import MongoClient and bson.objectid import ObjectId)
2. Create class AnimalShelter for object defining connection
3. Create method to Create data and input per Pymongo API format
4. Create method to implement Read data and get data with query, all data are return if query is None, Default is None.

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### Tests

1. *Using Jupyter to import CRUD python module to test instances of C and R created.*
2. *Call for the method to login to aacuser to give access for create and read records.*
3. *insert animal record with valid format.*
4. *Test exception if record enter is empty or invalid format per Pymongo.*
5. *Query record created.*
6. *Query for record that know not exist nor created to see if return error data.*

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## A screenshot of a computer Description automatically generatedTest result

## Contact

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