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Snhu [CS-340-11168-M01 Client/Server Development](https://learn.snhu.edu/d2l/home/1610135)  
June 2nd , 2024  
Week 4  
  
  
**Attached Screenshots below:**

1. Import Data into MongoDB  
     
   export MONGO\_HOST=nv-desktop-services.apporto.com

export MONGO\_PORT=31593

export MONGO\_USER=aacuser

export MONGO\_PASS=VUDEHSNHUCS340

1. Import the CSV Data Using mongoimport:  
     
   mongoimport --host $MONGO\_HOST --port $MONGO\_PORT -u $MONGO\_USER -p $MONGO\_PASS --authenticationDatabase admin --db AAC --collection animals --type csv --headerline --file /usr/local/datasets/aac\_shelter\_outcomes.csv
2. Develop the Python Module for CRUD Operations

Create the animal\_shelter.py File:  
  
nano animal\_shelter.py

1. Add the Following Code to animal\_shelter.py:

from pymongo import MongoClient

class AnimalShelter:

""" CRUD operations for Animal collection in MongoDB """

def \_\_init\_\_(self, username, password, host, port, db, collection):

""" Initialize the MongoClient and the database and collection names. """

self.client = MongoClient(f'mongodb://{username}:{password}@{host}:{port}')

self.database = self.client[db]

self.collection = self.database[collection]

def create(self, data):

""" Insert a document into the collection. """

if data is not None:

result = self.collection.insert\_one(data)

return True if result.acknowledged else False

else:

raise Exception("Nothing to save, because data parameter is empty")

def read(self, query):

""" Query for documents in the collection. """

if query is not None:

cursor = self.collection.find(query)

return [doc for doc in cursor]

else:

raise Exception("Query parameter is empty")

# Example usage

if \_\_name\_\_ == "\_\_main\_\_":

USER = 'aacuser'

PASS = 'VUDEHSNHUCS340'

HOST = 'nv-desktop-services.apporto.com'

PORT = 31593

DB = 'AAC'

COL = 'animals'

shelter = AnimalShelter(USER, PASS, HOST, PORT, DB, COL)

sample\_data = {"animal\_id": "A123456", "name": "Fido", "breed": "Labrador"}

print(shelter.create(sample\_data)) # True if successful

print(shelter.read({"animal\_id": "A123456"})) # Should return the document with animal\_id A123456

1. Created a testing script using:  
   nano test\_crud\_operations.py
2. Testing script below:

from animal\_shelter import AnimalShelter

# Define the connection variables

USER = 'aacuser'

PASS = 'VUDEHSNHUCS340'

HOST = 'nv-desktop-services.apporto.com'

PORT = 31593

DB = 'AAC'

COL = 'animals'

# Instantiate the AnimalShelter class

shelter = AnimalShelter(USER, PASS, HOST, PORT, DB, COL)

# Test data for the create operation

sample\_data = {"animal\_id": "A123456", "name": "Fido", "breed": "Labrador"}

# Test the create method

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

print(f'Create result: {create\_result}')

# Test the read method

read\_result = shelter.read({"animal\_id": "A123456"})

print(f'Read result: {read\_result}')

1. Executed with  
    python test\_crud\_operations.py

A screenshot of a computer

Description automatically generated