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CS340 project 1  
  
  
  
# Grazioso Salvare CRUD Operations BY VICTOR UDEH

## Purpose

This Python module provides CRUD (Create, Read, Update, Delete) operations for the Grazioso Salvare project, allowing interaction with the MongoDB database containing animal shelter data.

## Usage

### MongoDB Driver

We use `pymongo` as the Python driver for MongoDB due to its ease of use and comprehensive documentation.

### CRUD Class

The `AnimalShelter` class provides the following methods:

- `create(data)`: Inserts a document into the database.

- `read(query)`: Queries documents from the database.

- `update(query, update\_data)`: Updates documents in the database.

- `delete(query)`: Deletes documents from the database.

### Example

Here's how to use the CRUD class:

```python

from crud import AnimalShelter

# Connection details

MONGO\_HOST = 'nv-desktop-services.apporto.com'

MONGO\_PORT = 31593

MONGO\_USER = 'aacuser'

MONGO\_PASS = 'VUDEHSNHUCS340'

# Instantiate the AnimalShelter class

shelter = AnimalShelter(MONGO\_HOST, MONGO\_PORT, MONGO\_USER, MONGO\_PASS)

# Create a new document

new\_animal = {

"age\_upon\_outcome\_in\_weeks": 12,

"animal\_type": "Dog",

"breed": "Labrador Retriever Mix",

"color": "Black/White",

"date\_of\_birth": "2021-04-20",

"outcome\_type": "Adoption"

}

print("Create:", shelter.create(new\_animal))

# Read documents with limited output

query = {"animal\_type": "Dog"}

results = shelter.read(query)

limited\_results = results[:10] # Limiting output to the first 10 documents

for doc in limited\_results:

print(doc)

# Update documents

update\_query = {"animal\_type": "Dog"}

update\_data = {"color": "Black/White/Brown"}

print("Update:", shelter.update(update\_query, update\_data))

# Delete documents

delete\_query = {"animal\_type": "Dog"}

print("Delete:", shelter.delete(delete\_query))

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