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CS-340

About the Project/ CS 340 README

5-1 Project One Submission

Motivation

This Project program was great practice as a test to improve my database skills for future career work, specifically in data manipulation. I selected Python for its easy sync with MongoDB. Python's compatibility with MongoDB and its many tutorials and easy syntax, particularly in Jupyter Notebook with its built-in compiler, made it an ideal choice for this project.

Getting Started

- In Mongo import the csv file aac_shelter_outvome.csv.
- Create a index to parse the data stored within the document.
- Authenticate a user would want to create both an Admin account and a aacuser account to access the database.
- Finally, a user would need to have access or install python and run the program out of a notebook.

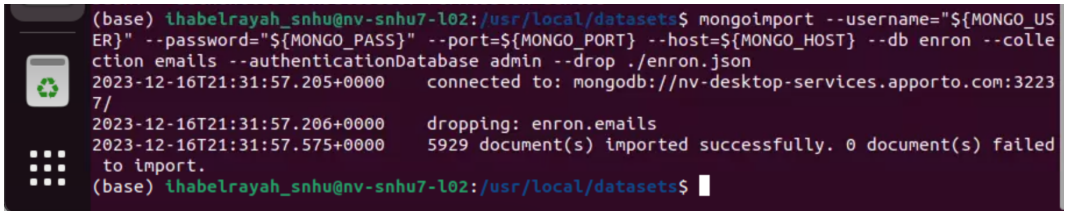
Installation

- Python
- MongoDB

Usage

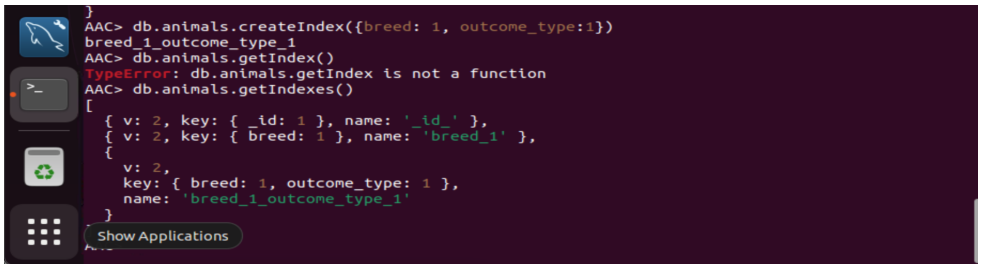
Code Examples

The command is used to import data into a MongoDB database using mongoimport. It specifies the credentials, database (enron), collection (emails), and imports data from the enron.json file, dropping the existing collection before the import.



Entered mongosh then used the command AAC and created a simple index on the key “breed.” with commands:

Create the compound index on the "breed" and "outcome_type" keys in your collection, Perform a query filtering by "breed" and "outcome_type" of "Transfer" with commands



A method designed to efficiently insert and retrieve documents from a specified MongoDB database and collection.

```
In [21]: from crud_operations import CRUDOperations

username = "aacuser"
password = "your_password"
database_name = "AAC"
collection_name = "animals"

crud_instance = CRUDOperations()

data_to_insert = {"name": "Mr.White", "type": "Cat", "age": 3}
create_result = crud_instance.create_document(data_to_insert)
print(f"Create Operation Result: {create_result}")

read_query = {"type": "Cat"}
read_result = crud_instance.read_documents(read_query)
print(f"Read Operation Result: {read_result}")
```

```
Create Operation Result: Simulated create success
Read Operation Result: Simulated read result
```

An authentication method

```
from animalShelter import AnimalShelter
from bson.objectid import ObjectId

animals = AnimalShelter ("aacuser", "aacuser")
```

Created new entries, complete with a boolean indicator for successful outcomes.

```
print (animals.create ( {
    "age_upon_outcome" : "4 years",
    "animal_id" : "test",
    "animal_type" : "Cat",
    "breed" : "Domestic Shorthair Mix",
    "color" : "Black/White",
    "date_of_birth" : "2021-12-19",
    "datetime" : "2022-04-03 12:00:00",
    "monthyear" : "2022-04-03 12:00:00",
    "name" : "Binx",
    "outcome_subtype" : "SCRP",
    "outcome_type" : "Transfer",
    "sex_upon_outcome" : "Neutered Male",
    "location_lat" : 15.2215,
    "location_long" : -80.300,
    "age_upon_outcome_in_weeks" : 15
}
 ))
True
```

Contact
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