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CS 340

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About the Project/Project Title

This file facilitates created read update delete (CRUD) action in MongoDB thru the Pymongo drive.

Motivation

Whenever we use any type of database, we must format the queries as well any errors that might be tedious later on in order for us to do this we must format each new query or re-code for each error type these operations have been abstracted into simple *get* and *set* styled methods.

Getting started

This guide is going to help for reference.

#### CRUD Class

CRUD operations are use in any database however formatting these queries and any error handling can be tedious. To help make things easy like the tedium of formatting each new query or re-code for each error type these operations have been abstracted to simply get and set methods.

The class contains the following methods:

* Constructor (password, username)
* createRecord(data)
* deleteRecord (query)
* getRecordId(data)
* getRecordCriteria(criteria = None)
* updateRecord (query, newValue)

And properties:

* records\_updated
* records\_matched
* records\_deleted

Installation

To use this abstraction you must use

* Python 3.6
* Pymongo 4.2
* MongoDB 4.2

Data available in a Mongo database collection, see example on importing a CSV

This screenshots next are going to give a good example about the user account permissions examples, roles and etc.

## Product Walkthrough

Grazioso Salvare requested the dashboard:

* Branding with logo
* A link to their website
* A data table, with custom filters, containing the information about the animals at the Austin Animal Shelter
  + Custom filters provide targeted animals for specific business needs, including:
    - Water Rescue
    - Mountain or Wilderness Rescue
    - Disaster Rescue or Individual Tracking
* A pie chart showing the breakdown of available breeds.
* A map with the location of a selected animal

To use this specifics abstractions you need to use(make sure to put underscore)

* + Records\_updated
  + Records\_matched
  + Records\_deleted

The constructors this will be the helping with initializing the server MongoDB so it can connect to the database.

Create record.

In order to create a record or data you must format the argument according to Pymongo API if this is not done correctly then a error message is going to pop off.

### Code Example I used in jupyter notebook.

Example to create the following record:  
  
*animals.createRecord({*

*'age\_upon\_outcome': "1 year",*

*'animal\_id': 'test\_id',*

*'animal\_type': 'test',*

*'breed': 'test breed',*

*'color': 'color',*

*'date\_of\_birth': '1900-01-01',*

*'datetime': '1900-01-01 12:00:00',*

*'monthyear': '1900-01-24T12:00:00',*

*'name': 'name',*

*'outcome\_subtype': '',*

*'outcome\_type': 'test',*

*'sex\_upon\_outcome': 'test',*

*'location\_lat': 70.10,*

*'location\_long': -40.10,*

*'age\_upon\_outcome\_in\_weeks': 95.666666*

*})*

*)*when true was returned then it meant that it was written successfully in the database.



A pie chart with numbers and text

Description automatically generatedA screenshot of a computer

Description automatically generated



Chart, pie chart

Description automatically generatedA close up of a document

Description automatically generated



Chart, pie chart

Description automatically generatedA close up of a document

Description automatically generated

A screenshot of a dashboard

Description automatically generated

A screenshot of a computer screen

Description automatically generated

A screenshot of a computer program

Description automatically generatedGraphical user interface, text, application

Description automatically generatedA screen shot of a computer code

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Text

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A screenshot of a computer program

Description automatically generatedA screenshot of a computer screen

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Struggles

I struggled a lot while doing this project specially because at the beginning I didn’t know what to do and I got a little bit overwhelmed and no matter what I was doing I was getting everything wrong. However, I had to make sure that I was able to satisfy the clients requirement creating the clients specific requirements.