

**HW4: MongoDB**  
**Due: 12:59pm Tuesday March 23, 2021.**

You have been provided a python script file named **mongoDB\_hw4.py** that creates a mongoDB database with two collections, and populates the collections with data imported from **data.py**. Please **DO NOT** modify any existing data in **data.py**, but feel free to add more data to test your code!

Please **DO NOT** modify the database initialization section(line 10-32) in **mongoDB\_hw4.py**.

Your tasks:

1. Install mongodb server. Download mongoDB\_hw4.py and data.py. Store both files under the same directory.
2. Install python package pymongo. See <https://pypi.org/project/pymongo/>
3. Replace #YOUR NAME HERE by your name at line 3 of the mongoDB\_hw4.py.
4. In the question section(begin at line 66), add your python code (with comments) according to the following specifications.
  - a. Find the author of the book "Android in Action, Second Edition".  
Return the author's **name** or **names**.
  - b. Find out which book(s) is(are) an anthology. Note that the word 'anthology' will appear under 'Long Description'. (Be careful with the difference between collections.find() and collections.find\_one() method. Which one should be used in this case?)  
Return the **title** of the book(s).
  - c. Among the authors of the book "Unlocking Android", which author is a managing partner at Twin Technologies LLC? To simplify the question, you can assume there is only one author who is a managing partner at Twin Technologies LLC.  
Return his/her **name** and **biography**.

Hints:

Divide the problem into two steps:

Step I: get a list of authors of the book from the book-collection (similar to Question 1).

Step II: iterate through that list (using a for-loop) executing a query that searches for those two strings.

In Python, consider import re (i.e., the regular expressions library) and the re.compile() method to generate more complex regex.

- For each question, please print your answers using python print() method. Your python script when executed:

```
$ python3 mongoDB_hw4.py
```

Should print the following outputs to the terminal:

*Question 1: author's name or names*

*Question 2: title of the book(s)*

*Question 3: his/her name and biography*

- Your code must not be tailored to work only on one data set! Which means if I test your code against a larger dataset(e.g I can add more authors to a book, or more book collections), your code should generate correct output.
- Finally rename **mongoDB\_hw4.py** to **LastName\_mongoDB\_hw4.py** and upload your file on to the canvas. **DO NOT upload data.py.**