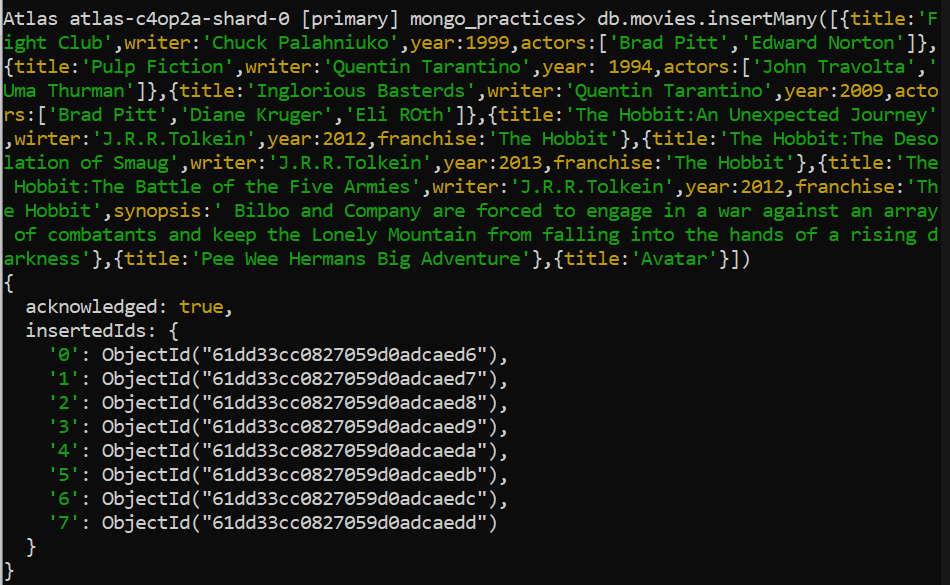
**MongoDB Lab Assignments -Day 1**

MongoDB Exercise in mongo shell Connect to a running mongo instance, use a database named mongo\_practice. Document all your queries in a JavaScript file to use as a reference.

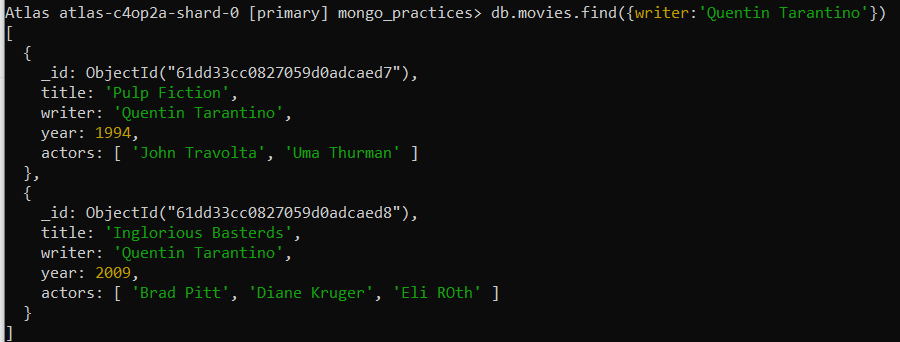
**Insert Documents**

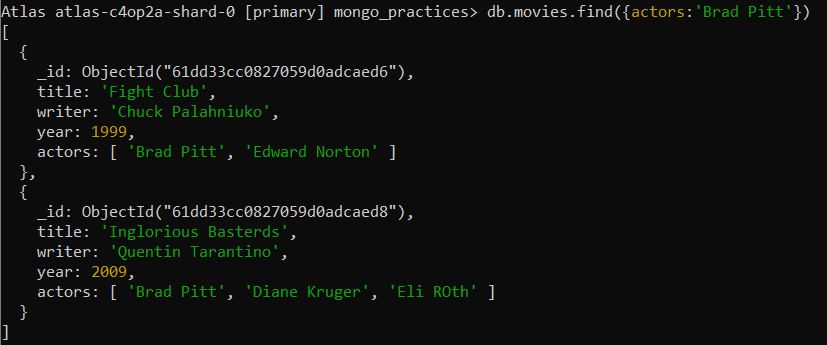


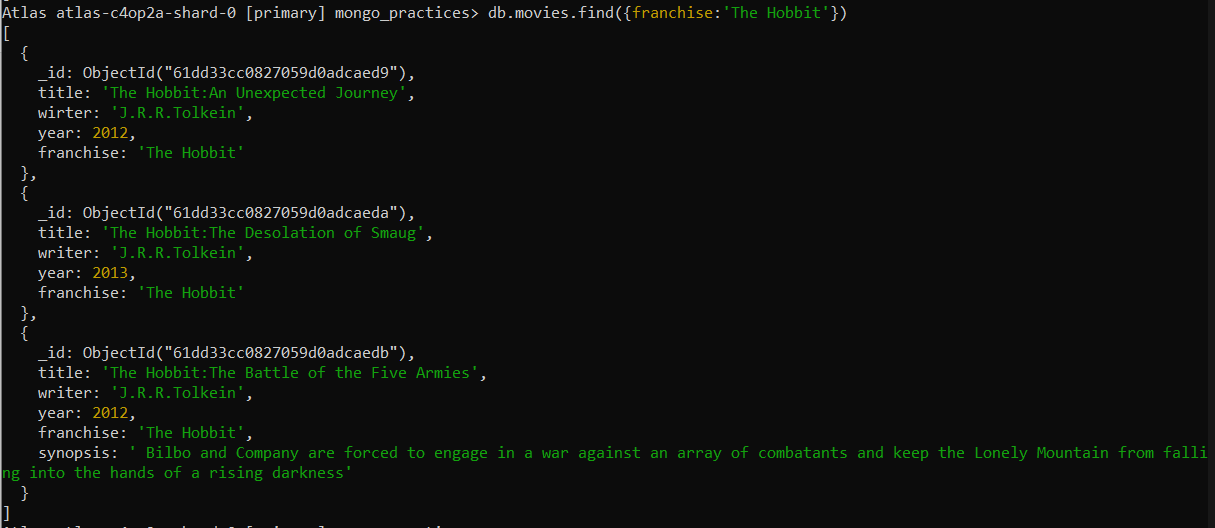
**Query / Find Documents**

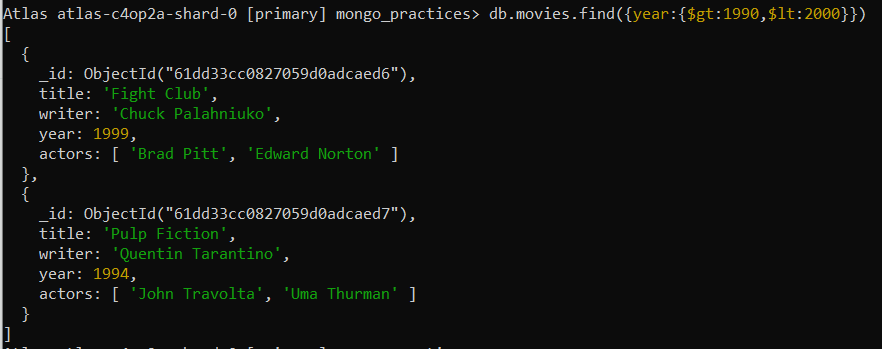
**query the movies collection to**

1. get all documents

2. get all documents with writer set to "Quentin Tarantino"

3. get all documents where actors include "Brad Pitt"

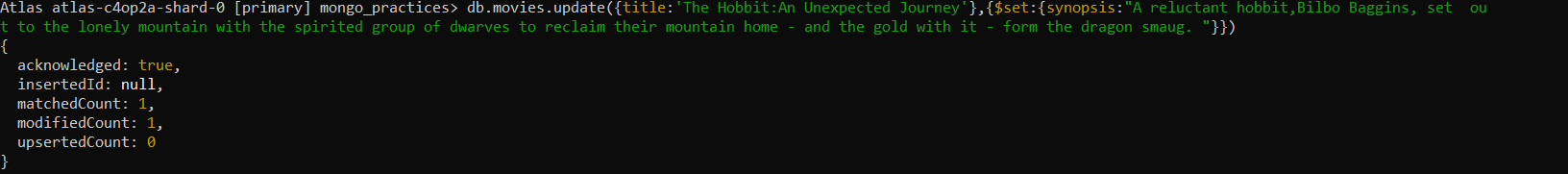
4. get all documents with franchise set to "The Hobbit"

5. get all movies released in the 90s

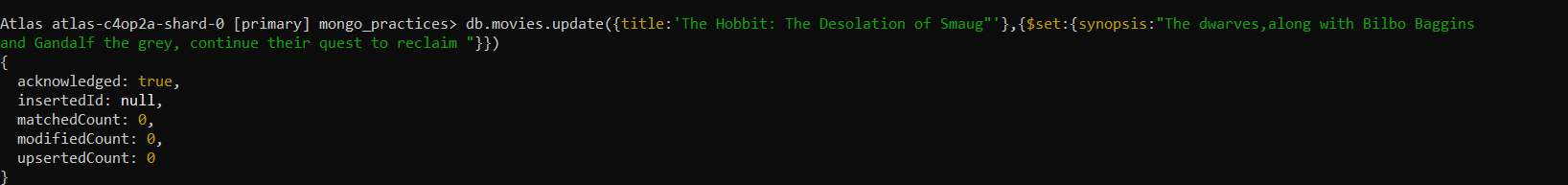
6. get all movies released before the year 2000 or after 2010

**Update Documents**

1. add a synopsis to "The Hobbit: An Unexpected Journey" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon Smaug."



2. add a synopsis to "The Hobbit: The Desolation of Smaug" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."

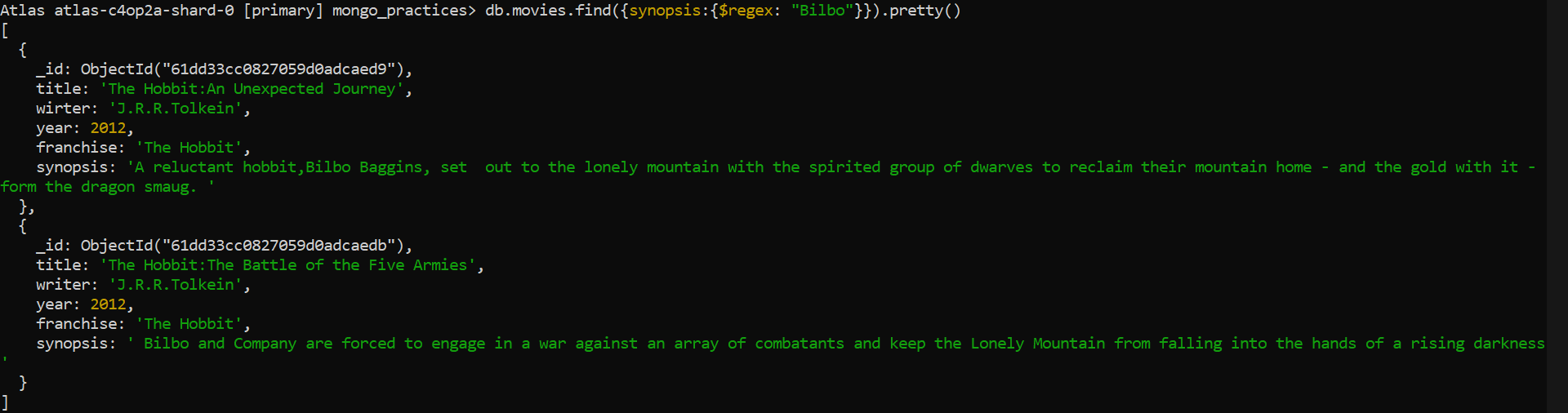


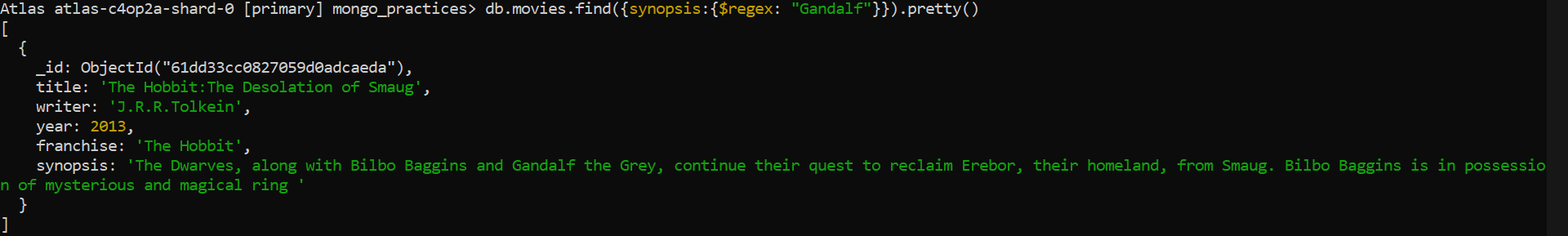
3. add an actor named "Samuel L. Jackson" to the movie "Pulp Fiction"

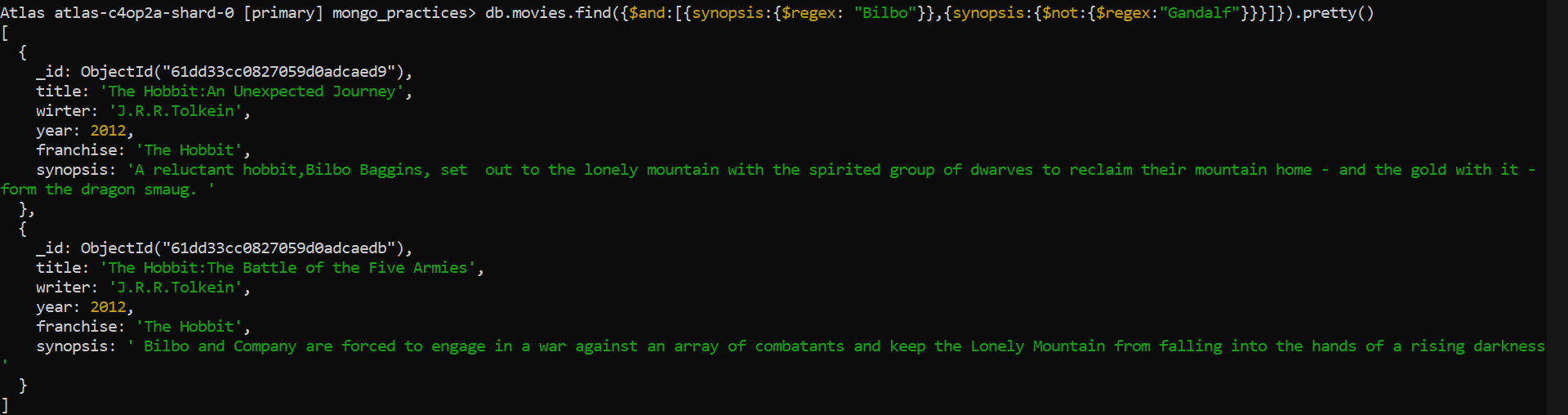


**Text Search**

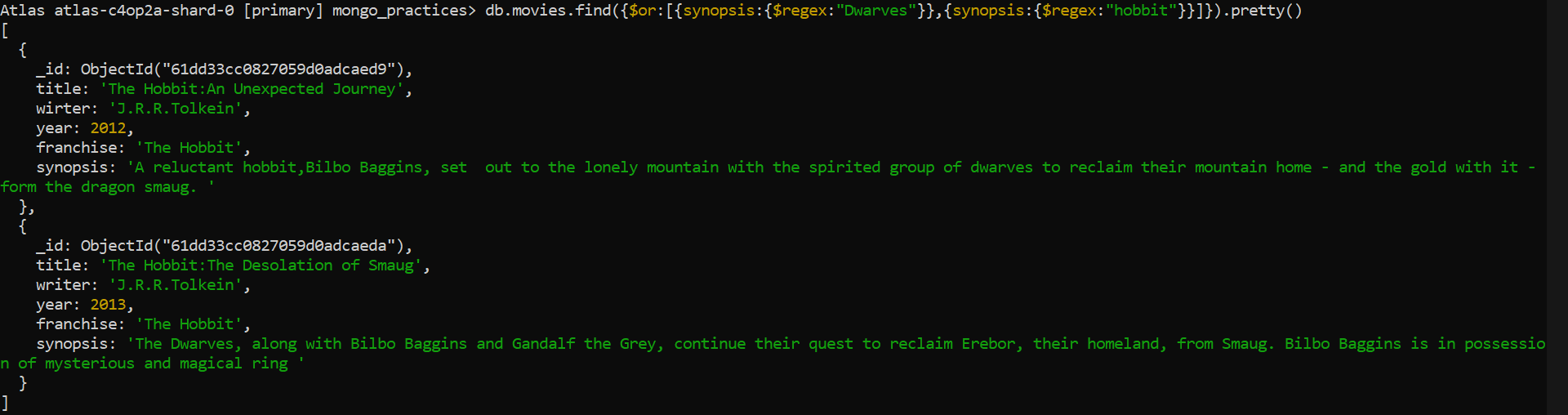
1. find all movies that have a synopsis that contains the word "Bilbo"



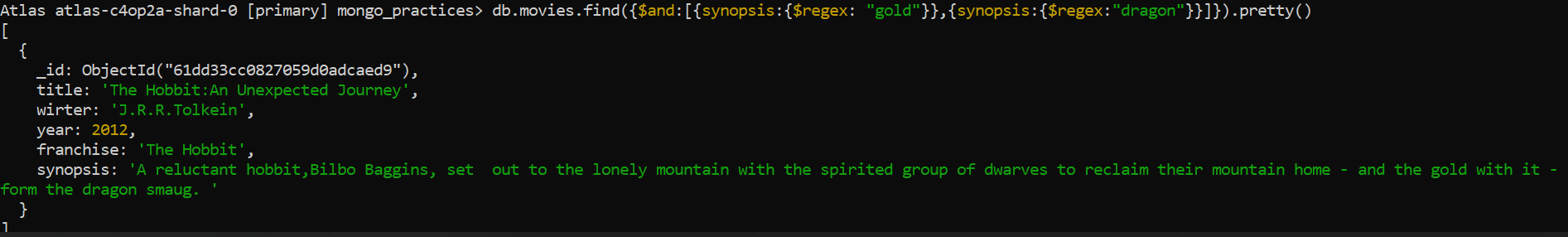
2. find all movies that have a synopsis that contains the word "Gandalf” 

3. find all movies that have a synopsis that contains the word "Bilbo" and not the word "Gandalf"

4. find all movies that have a synopsis that contains the word "dwarves" or "hobbit"



5. find all movies that have a synopsis that contains the word "gold" and "dragon".



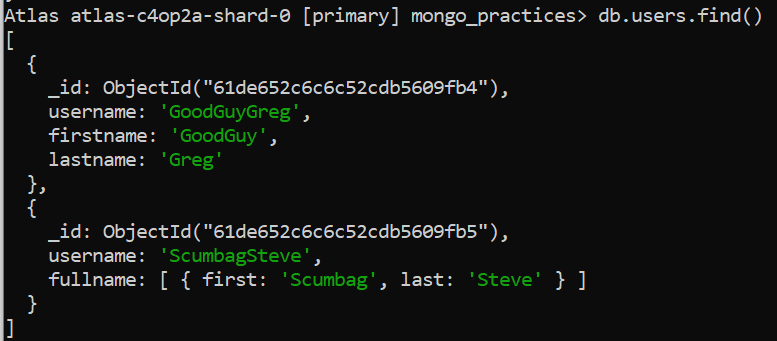
**Delete Documents**

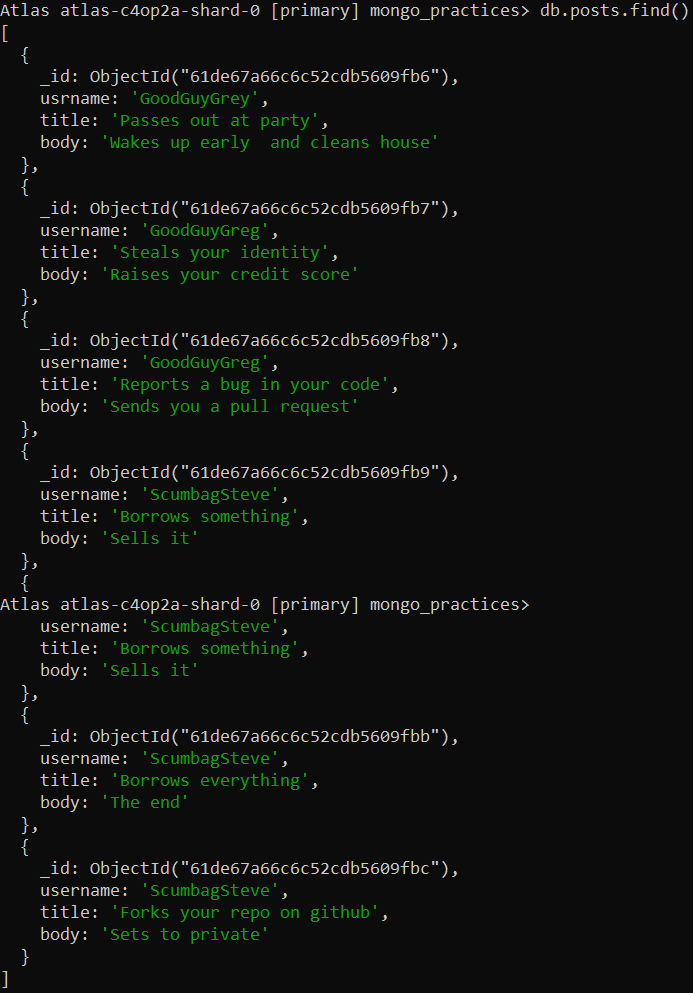
1. delete the movie "Pee Wee Herman's Big Adventure"

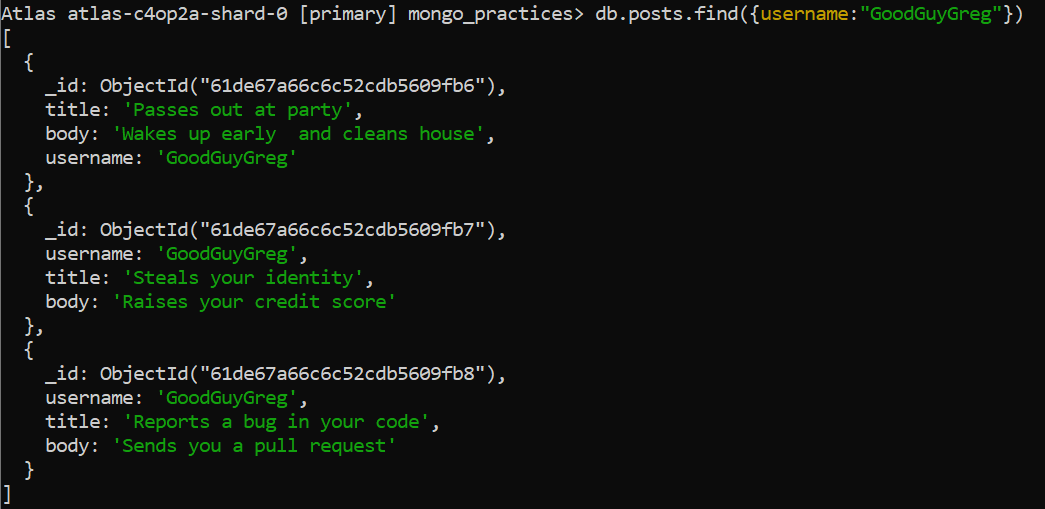
2. delete the movie "Avatar".



**Querying related collections**

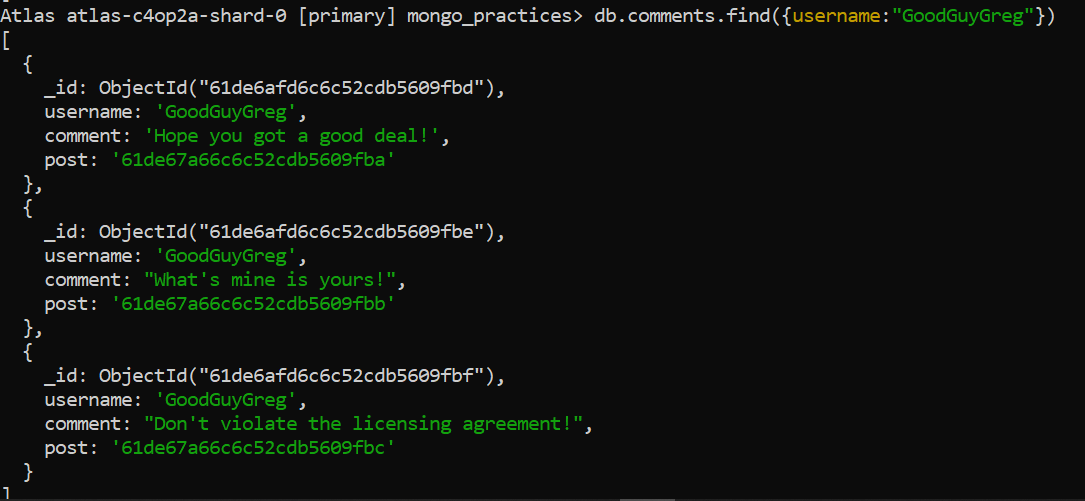
1. find all users 

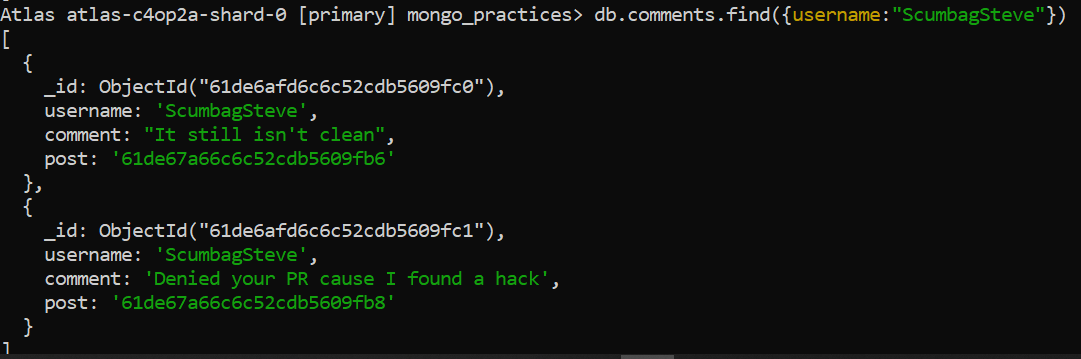
2. find all posts 

3. find all posts that was authored by "GoodGuyGreg" 

4. find all posts that was authored by "ScumbagSteve" 

5. find all comments 

6. find all comments that was authored by "GoodGuyGreg" 

7. find all comments that was authored by "ScumbagSteve".

8. find all comments belonging to the post "Reports a bug in your code"

**MongoDB -Aggregation Exercises**

Import the zips.json file into your MongoDB. Database name is "population" and collection name is "zipcodes". mongoimport --db population --collection zipcodes --file zips.json

Atlanta Population

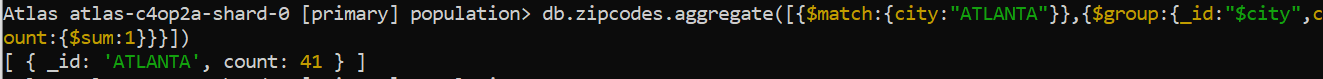
1. use db.zipcodes.find() to filter results to only the results where city is ATLANTA and state is GA. Graphical user interface, text, application, email

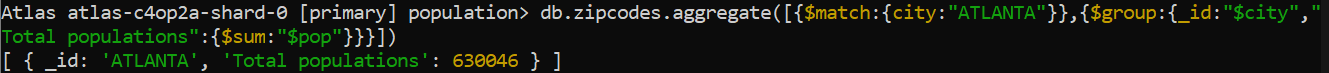
Description automatically generated

2. use db.zipcodes.aggregate with $match to do the same as above.

Graphical user interface, application

Description automatically generated

3. use $group to count the number of zip codes in Atlanta. 

4. use $group to find the total population in Atlanta. 

**Populations By State**

1. use aggregate to calculate the total population for each state A screenshot of a computer

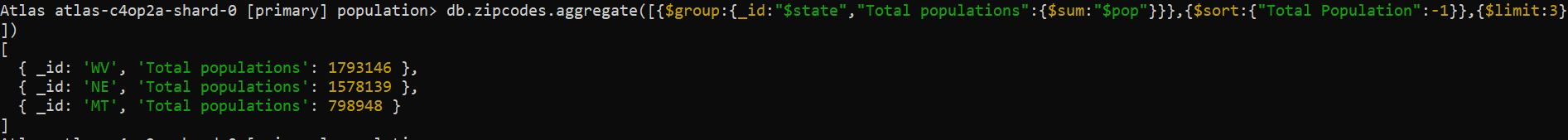
Description automatically generated with medium confidence

2. sort the results by population, highest first

Text

Description automatically generated

3. limit the results to just the first 3 results. What are the top 3 states in population?



**Populations by City**

1. use aggregate to calculate the total population for each city (you have to use city/state combination). You can use a combination for the \_id of the $group: { city: '$city', state: '$state' }

Graphical user interface

Description automatically generated with low confidence

2. sort the results by population, highest first

Text

Description automatically generated

3. limit the results to just the first 3 results. What are the top 3 cities in population? Text

Description automatically generated

4. What are the top 3 cities in population in Texas? A screenshot of a computer

Description automatically generated with medium confidence

**MongoDB – Complex Queries**

Exercise Questions

1. Write a MongoDB query to display all the documents in the collection restaurants. Text

Description automatically generated

2. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine for all the documents in the collection restaurant. Text

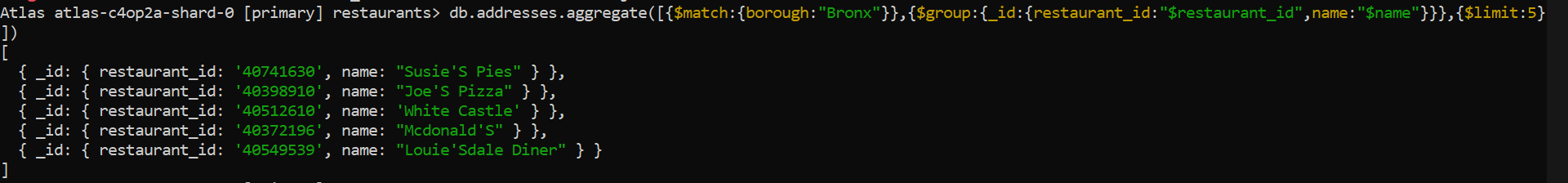
Description automatically generated

3. Write a MongoDB query to display the fields restaurant\_id, name, borough and cuisine, but exclude the field \_id for all the documents in the collection restaurant. Text

Description automatically generated

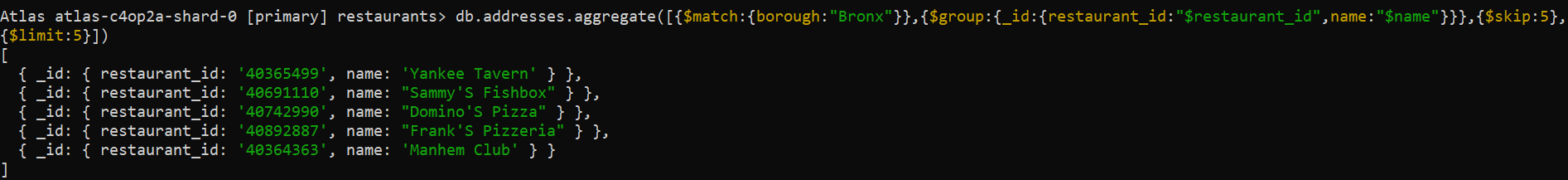
4. Write a MongoDB query to display the fields restaurant\_id, name, borough and zip code, but exclude the field \_id for all the documents in the collection restaurant. Text

Description automatically generated

5. Write a MongoDB query to display the first 5 restaurant which is in the borough Bronx. 

6. Write a MongoDB query to display all the restaurant which is in the borough Bronx. A screenshot of a computer

Description automatically generated with medium confidence

7. Write a MongoDB query to display the next 5 restaurants after skipping first 5 which are in the borough Bronx. 

8. Write a MongoDB query to find the restaurants who achieved a score more than 90. Graphical user interface, text

Description automatically generated

9. Write a MongoDB query to find the restaurants that achieved a score, more than 80 but less than 100. Text

Description automatically generated

10. Write a MongoDB query to find the restaurants which locate in latitude value less than -95.754168. Text

Description automatically generated

11. Write a MongoDB query to find the restaurants that do not prepare any cuisine of 'American' and their grade score more than 70 and latitude less than -65.754168. Text

Description automatically generated

12. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American' and achieved a score more than 70 and located in the longitude less than -65.754168. Text

Description automatically generated

13. Write a MongoDB query to find the restaurants which do not prepare any cuisine of 'American ' and achieved a grade point 'A' not belongs to the borough Brooklyn. The document must be displayed according to the cuisine in descending order. Text

Description automatically generated

14. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Wil' as first three letters for its name. Text

Description automatically generated

15. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'ces' as last three letters for its name. Text

Description automatically generated

16. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which contain 'Reg' as three letters somewhere in its name. Text

Description automatically generated

17. Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish. Text

Description automatically generated

18. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which belong to the borough Staten Island or Queens or Bronxor Brooklyn. Text

Description automatically generated

19. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which are not belonging to the borough Staten Island or Queens or Bronxor Brooklyn. A screenshot of a computer

Description automatically generated with medium confidence

20. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which achieved a score which is not more than 10. Text

Description automatically generated

21. Write a MongoDB query to find the restaurant Id, name, borough and cuisine for those restaurants which prepared dish except 'American' and 'Chinees' or restaurant's name begins with letter 'Wil'. Text

Description automatically generated

22. Write a MongoDB query to find the restaurant Id, name, and grades for those restaurants which achieved a grade of "A" and scored 11 on an ISODate "2014-08-11T00:00:00Z" among many of survey dates.. Text

Description automatically generated 23. Write a MongoDB query to find the restaurant Id, name and grades for those restaurants where the 2nd element of grades array contains a grade of "A" and score 9 on an ISODate "2014-08-11T00:00:00Z" Graphical user interface, text

Description automatically generated

24. Write a MongoDB query to find the restaurant Id, name, address and geographical location for those restaurants where 2nd element of coord array contains a value which is more than 42 and upto 52..

25. Write a MongoDB query to arrange the name of the restaurants in ascending order along with all the columns. Text

Description automatically generated

26. Write a MongoDB query to arrange the name of the restaurants in descending along with all the columns. Text

Description automatically generated

27. Write a MongoDB query to arranged the name of the cuisine in ascending order and for that same cuisine borough should be in descending order. Text

Description automatically generated

28. Write a MongoDB query to know whether all the addresses contains the street or not. Text

Description automatically generated

29. Write a MongoDB query which will select all documents in the restaurants collection where the coord field value is Double. Text

Description automatically generated

30. Write a MongoDB query which will select the restaurant Id, name and grades for those restaurants which returns 0 as a remainder after dividing the score by 7. Text

Description automatically generated

31. Write a MongoDB query to find the restaurant name, borough, longitude and attitude and cuisine for those restaurants which contains 'mon' as three letters somewhere in its name.

32. Write a MongoDB query to find the restaurant name, borough, longitude and latitude and cuisine for those restaurants which contain 'Mad' as first three letters of its nameText

Description automatically generated