HW1 – Due by 11:59pm on Mon, Sep 24, 2018

PART 1 - READING ASSIGNMENT (MongoDB in Action - Attached)

Chapter 3. Writing programs using MongoDB
Chapter 4. Document-oriented data

PART 2 - READING ASSIGNMENT (Papers Attached)

Read the following papers and provide a short summary for each paper.
- Application of NoSQL Database in Web Crawling
- Comparing NoSQL MongoDB to an SQL
- Data Aggregation System

PART 3 - PROGRAMMING ASSIGNMENT

Create a collection called 'games'. We're going to put some games in it.
Add 5 games to the database. Give each document the following properties: name, genre, rating (out of 100)
If you make some mistakes and want to clean it out, use remove() on your collection.
Write a query that returns all the games.
Write a query to find one of your games by name without using limit().
Use the findOne method. Look how much nicer it's formatted!
Write a query that returns the 3 highest rated games.
Update your two favorite games to have two achievements called 'Game Master' and 'Speed Demon', each under a single key.
Show two ways to do this. Do the first using update() and do the second using save().
Hint: for save, you might want to query the object and store it in a variable first.
Write a query that returns all the games that have both the 'Game Maser' and the 'Speed Demon' achievements.
Write a query that returns only games that have achievements. Not all of your games should have achievements, obviously.
You could take the screenshots by pressing ALT + PRT SCRN or Snipping Tool every time you execute a command, and paste into a word document.
You could then submit this document.

PART 4 - PROGRAMMING ASSIGNMENT

Write a Java (could be a console app - will only run once to import the data into MongoDB) program to read the following file, and insert into 3 different collections (movies, ratings, tags).
- MovieLens 10M
Stable benchmark dataset. 10 million ratings and 100,000 tag applications applied to 10,000 movies by 72,000 users.
http://grouplens.org/datasets/movielens/

Once the data are inserted into MongoDB, create a web application (preferably in Spring MVC) to ask the user to perform several operations on the data. Such as, the user might search the movies by title, or another keyword, and then display the results.

PART 5- PROGRAMMING ASSIGNMENT

Write a Java (could be a console app - will only run once to import the data into MongoDB) program to read the access.log file (attached), and insert into access collection.
- MovieLens 10M
Once the data are inserted into MongoDB, create a swing app, console app, or web application (preferably in Spring MVC) to ask the user to perform several operations on the data. Such as, the user might search the IP addresses, or another keyword, and then display the results.

PART 6 - PROGRAMMING ASSIGNMENT

Execute 5 commands of your choice from each of the following groups, and paste the screenshots in a word document.

mongo> help	[5 commands]
mongo> db.help()	[5 commands]
mongo> db.mycoll.help()	[5 commands]