PART 1. Reading Assignment [MongoDB in Action - eBook Links Provided]
Chapter 2. MongoDB through the JavaScript shell
https://learning.oreilly.com/library/view/mongodb-in-action/9781617291609/kindle_split_011.html
Chapter 3. Writing programs using MongoDB
https://learning.oreilly.com/library/view/mongodb-in-action/9781617291609/kindle_split_012.html
Chapter 4. Document-oriented data
https://learning.oreilly.com/library/view/mongodb-in-action/9781617291609/kindle_split_014.html
Chapter 5. Constructing queries
https://learning.oreilly.com/library/view/mongodb-in-action/9781617291609/kindle_split_015.html

PART 2. Write a .bat/.sh to import the entire NYSE dataset (stocks A to Z) into MongoDB. For MacOS, there is a sample .sh script in the slides. For windows users, you may refer to the tutorial [https://ss64.com/nt/for_d.html] or any online resource. The idea behind this is that instead of running mongoimport manually on each file, we create a script, and loop through all the files in a directory, and run mongoimport at each iteration.
NYSE Dataset Link: http://msis.neu.edu/nyse/

PART 3.1. Use the NYSE database to find the average price of stock_price_high values for each stock using MapReduce.
PART 3.2. Part 3.1 result will not be correct as AVERAGE is a commutative operation but nor associative. Use a FINALIZER to find the correct average. (Hint: pass sum and count from the reducer) (https://docs.mongodb.com/manual/reference/method/db.collection.mapReduce/index.html**)**

PART 4. Write a console application (or Swing Application), to read and insert the access.log file into MongoDB. This application will only run once to insert the log file into MongoDB. Once the documents are inserted into MongoDB, perform MapReduce for each of the followings:

a) Number of times each IP address accessed any web page
b) Latest access date and time from each IP address
c) Find the number of GET, POST, HEAD, etc. requests
d) Find the number of STATUS CODES (404, 200, etc)

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).
http://files.grouplens.org/datasets/movielens/ml-1m.zip
Once the data are inserted into MongoDB, do the followings using MapReduce:

a. Number of Movies released per year (Movies Collection)
b. Number of Movies per genre (Movies Collection)
c. Number of Movies per rating (Ratings Collection)

PART 5 - 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]

PART 6 – READING ASSIGNMENT
https://stackoverflow.com/questions/18277129/how-do-i-enable-mongodb-cli-pretty-print-db-col-find-pretty-not-working

PART 7 - 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 Master' 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.