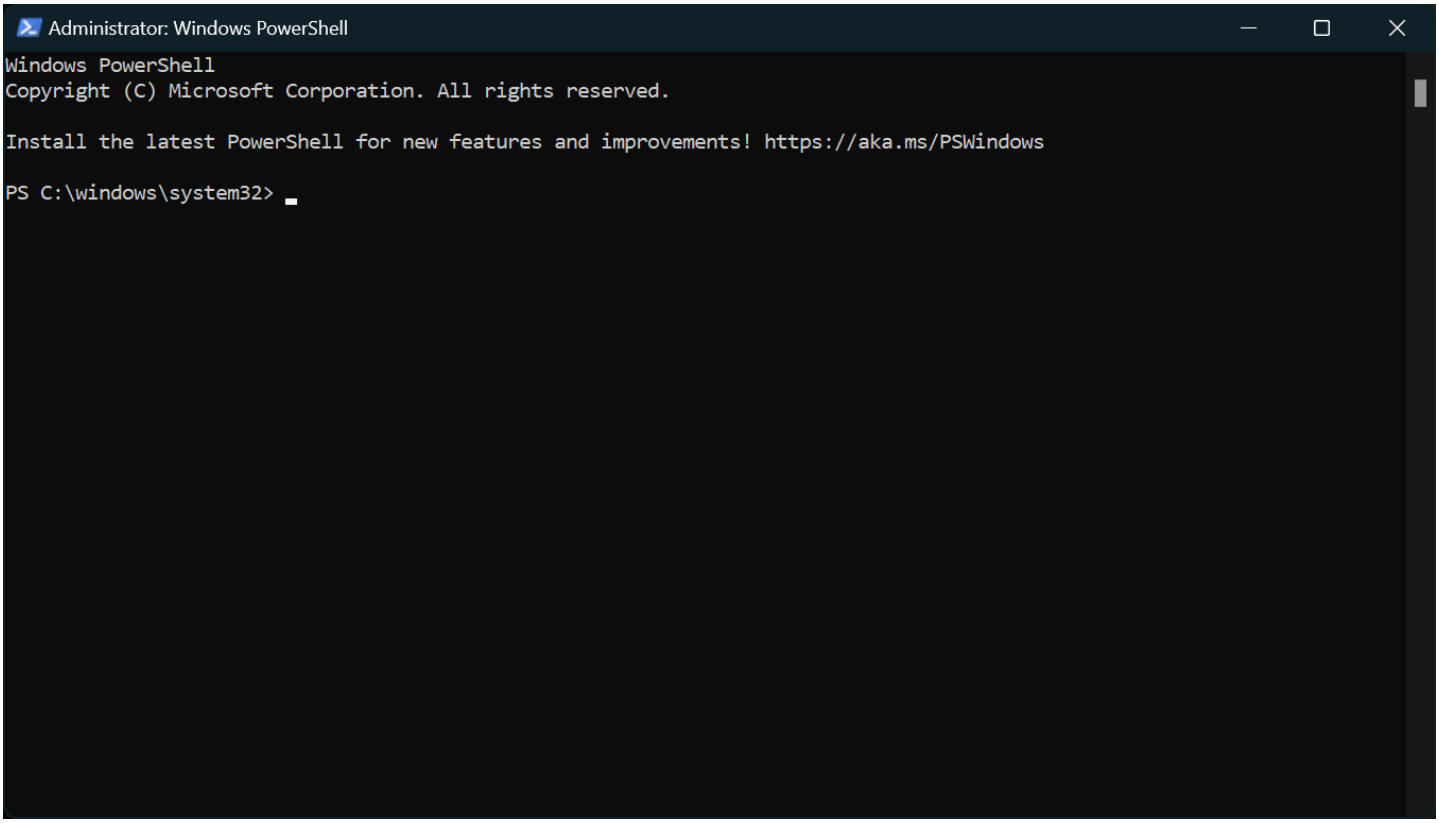
Bryce Jensen
CS-340-Q7703
1-3 Assignment: Intro to MongoDB
January 12, 2024

1. Begin by logging into the Virtual Lab (Apporto) and accessing the terminal application. Use the Mongo in Apporto (Virtual Lab) Tutorial PDF to help with this task.



2. First, you must **verify access to the environment** by starting up MongoDB and the mongo shell. Open the terminal application, which will bring up the Linux shell prompt. Complete the following:

   Execute the mongo command to start the mongo shell. This will bring up the mongo shell prompt.

   Take a **screenshot** of the whole terminal window to verify your presence in the mongo shell. **All of your screenshots *must* include your username, which is at the top of your terminal window.**

Mongosh being run from a terminal. Username is included after starting the Docker Container running Linux.

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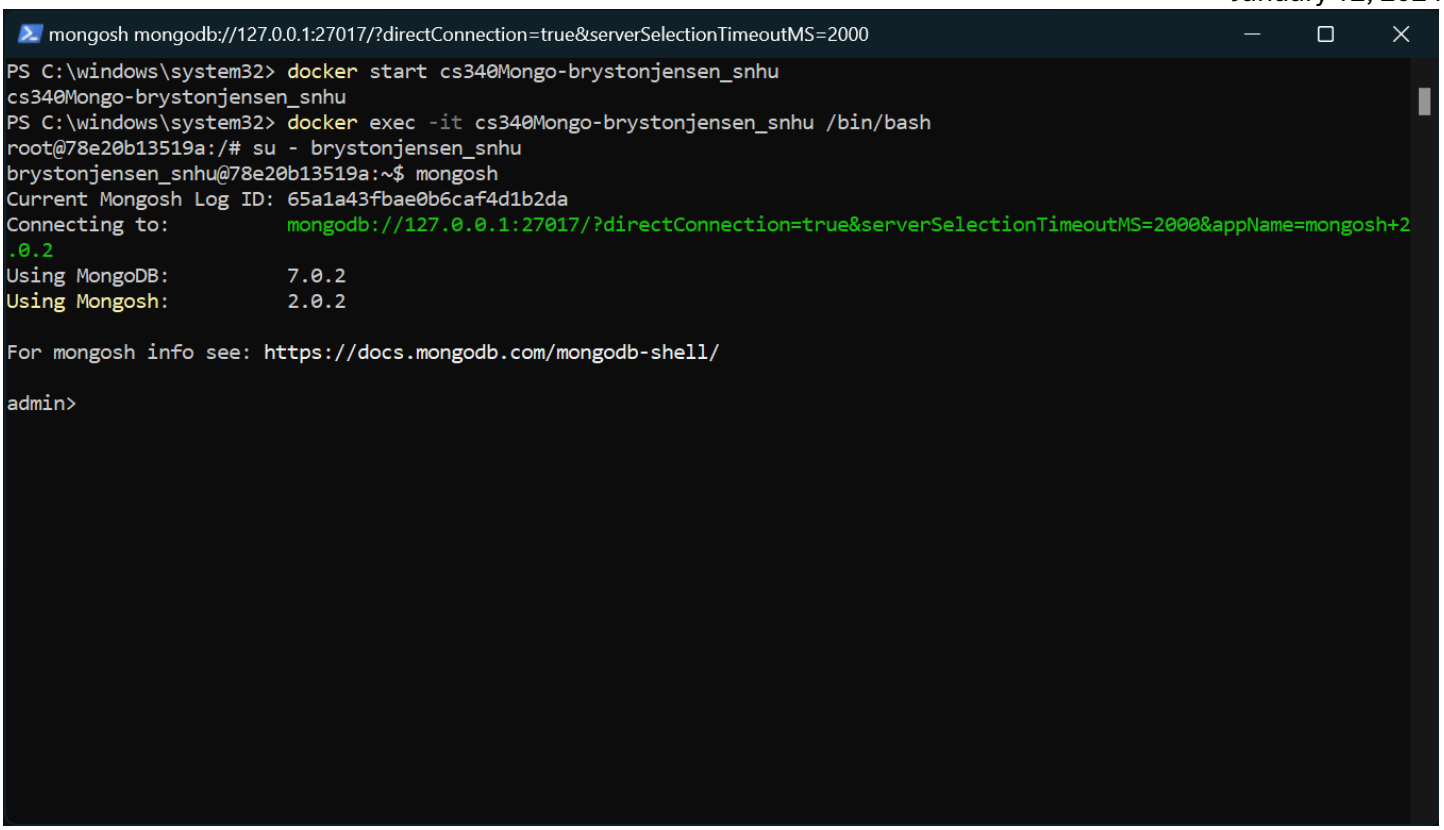

3. *You have been given a preloaded database containing email documents. Exit MongoDB and return to the Linux prompt. Using the database provided, execute the following administrative commands:*

- ***Load the database by executing the following at the Linux command line in the terminal you opened:***
- *cd /usr/local/datasets*
- *mongoimport --username="${MONGO_USER}" *
- *--password="${MONGO_PASS}" --port=${MONGO_PORT} *
- *--host=${MONGO_HOST} --db enron --collection emails *

--authenticationDatabase admin --drop ./enron.json

Note: *You must type in the previous commands because cutting and pasting will generate an incorrect character for quotation marks. The MongoDB instance set up in your Apporto virtual lab has an administrative user configured, and the four environment variables MONGO_USER, MONGO_PASS, MONGO_PORT, and MONGO_HOST are pre-configured in your environment. Each of these must be added to the* ***mongoimport*** *=command because the database is not running on the same machine that is running your virtual lab. The --drop option allows you to run the command several times without worrying about duplicate information being loaded into the database.*

Retrieve a document from the collection *by executing the following commands in the mongo shell. Take a screenshot to verify your execution of these commands.*

show dbs #lists directory of databases

use enron #this sets db to the enron database

show collections #lists directory of collections

db.emails.findOne() #retrieves a document from the emails collection

- ***Execute the command to find the size of a single document*** *of your choosing from the enron database. Refer to Two Ways to Get a Document's Size in MongoDB or the textbook if you need help constructing this command. Take a screenshot to verify your execution of this command.*

Note: *For this command to work, you may need to activate compatibility with legacy versions of the mongo shell. You accomplish this by entering the following at the shell prompt:*

snippet install mongocompat

Answer yes to the two questions the shell asks, and you should be all set.

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mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000

```
Using Mongosh:          2.0.2

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

admin> show dbs
admin   116.00 KiB
config  108.00 KiB
enron     7.64 MiB
local    72.00 KiB
admin> use enron
switched to db enron
enron> show collections
emails
enron> db.emails.findOne()
{
  _id: ObjectId("52af48b5d55148fa0c19964d"),
  sender: 'rosalee.fleming@enron.com',
  recipients: [ 'ted.enloe@compaq.com' ],
  cc: [],
  text: 'Mr. Enloe -\n' +
    '\n' +
    'Ken Lay asked me to let you know that regrettably he will be in Europe, so \n' +
    'unable to attend the dinner.\n' +
    '\n' +
    'Rosalee\n' +
    '\n' +
    '\n' +
    '\n' +
    '\n' +
    '"Enloe, Ted" <Ted.Enloe@COMPAQ.com> on 08/10/2000 02:08:44 PM\n' +
    'To: "Capellas, Michael" <Michael.Capellas@COMPAQ.com>, "Chris A. Davis \n' +
    '(E-mail)" <Cdavis@onisystems.com>, "George H. Heilmeier (E-mail)" \n' +
    '<ghh@telcordia.com>, "Judith L. Craven (E-mail)" <lynnj@iname.com>, "Kenneth \n' +
    'L. Lay (E-mail)" <klay@enron.com>, "Kenneth Roman (E-mail)" \n' +
    '<kenroman@worldnet.att.net>, "Lawrence T. Babbio Jr. (E-mail)" \n' +
    '<babbio@BellAtlantic.com>, "Lucille S. Salhany (E-mail)" <lucie@jhmedia.com>, \n' +
    '"Peter N. Larson (E-mail)" <hkiss@bruncorp.com>, "Thomas J. Perkins (E-mail)" \n' +
    '<kjewett@kpcb.com>\n' +
    'cc:  \n' +
    'Subject: Friday, September 29, 2000\n' +
    '\n' +
    '\n' +
    'I would like to request that you reserve the evening of Friday, September\n' +
    '29, 2000 for a dinner in New York honoring Ben Rosen as he retires from the\n' +
    'board of Compaq Computer Corporation.\n' +
    '\n' +
    'Further details (time, location, etc.) will follow.\n' +
    '\n' +
    'Please reply to this email ASAP and let me know your availability.\n' +
    '\n' +
    'Thanks, Ted\n' +
    '\n',
  mid: '18601230.1075840285841.JavaMail.evans@thyme',
  fpath: 'enron_mail_20110402/maildir/lay-k/_sent/109.',
  bcc: [],
  to: [ 'ted.enloe@compaq.com' ],
  replyto: null,
  ctype: 'text/plain; charset=us-ascii',
  fname: '109.',
  date: '2000-08-11 02:13:00-07:00',
  folder: '_sent',
  subject: 'Re: Friday, September 29, 2000'
}
enron> Object.bsonsize(db.emails.findOne())
1523
```

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- ***Execute the command to find the size of the collection of documents*** *in the enron database. Refer back to the Two Ways to Get a Document's Size in MongoDB article if you need help constructing this command. Take a screenshot to verify your execution of this command.*