

Lab 7 – MongoDB Setup

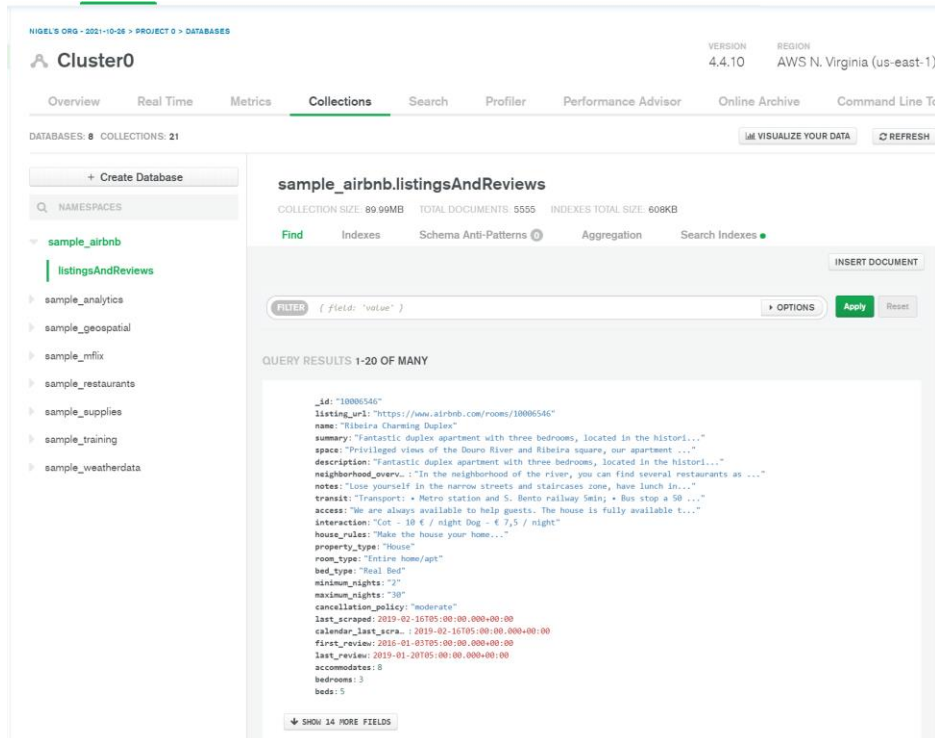
Course: CS-3860

Author: Nigel Nelson

Date: 10/26/21

Sample Databases:

- This screen shot shows that a MongoDB account was properly setup, and that sample data was loaded into the collections.



Java output of databases:

- This output shows that the specified Connection Java class was implemented and successfully connected to MongoDB to read out all of the sample databases contained in my account.

```
{"name": "sample_airbnb", "sizeOnDisk": 5.4734848E7, "empty": false}
{"name": "sample_analytics", "sizeOnDisk": 9396224.0, "empty": false}
{"name": "sample_geospatial", "sizeOnDisk": 1232896.0, "empty": false}
{"name": "sample_mflix", "sizeOnDisk": 4.8603136E7, "empty": false}
{"name": "sample_restaurants", "sizeOnDisk": 7147520.0, "empty": false}
{"name": "sample_supplies", "sizeOnDisk": 1146880.0, "empty": false}
{"name": "sample_training", "sizeOnDisk": 4.851712E7, "empty": false}
{"name": "sample_weatherdata", "sizeOnDisk": 2772992.0, "empty": false}
{"name": "admin", "sizeOnDisk": 339968.0, "empty": false}
{"name": "local", "sizeOnDisk": 5.039845376E9, "empty": false}
Nov 01, 2021 4:03:38 PM com.mongodb.diagnostics.logging.JULLogger log
```

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Output of created student:

- This output shows that both the Create Java class successfully created a new student, and that the Read class is able to connect to MongoDB and output a student according to student_id.

```
INFO: Discovered replica set primary cluster0-shard-00-01.9d2q0.mongodb.net:27017
Nov 01, 2021 8:46:35 PM com.mongodb.diagnostics.logging.JULLogger log
INFO: Opened connection [connectionId{localValue:4, serverValue:138323}] to cluster0-shard-00-01.9d2q0.mongodb.net:27017
Student 1: {"_id": {"$oid": "6180977eb9129a3b5c969051"}, "student_id": 10005.0, "class_id": 1.0, "scores": [{"type": "exam", "score": 43.048011705}]}
Nov 01, 2021 8:46:36 PM com.mongodb.diagnostics.logging.JULLogger log
```

Verifying operation of Update class:

- This output shows that the Update Java class is capable of connecting to MongoDB and updating a student to contain a specified comment.

The screenshot shows the MongoDB Compass interface. At the top, there is a filter bar with the filter `{ "student_id": 10005 }` and buttons for `OPTIONS`, `Apply`, and `Reset`. Below the filter bar, it says `QUERY RESULTS 1-1 OF 1`. The main area displays a JSON document:

```
{
  "_id": ObjectId("6180977eb9129a3b5c969051"),
  "student_id": 10005,
  "class_id": 1,
  "scores": [
    {
      "type": "exam",
      "score": 43.04801170555803
    },
    {
      "type": "quiz",
      "score": 85.0
    },
    {
      "type": "homework",
      "score": 90.0
    }
  ],
  "comment": "This student has some bad grades!"
}
```

Deleting created student:

- This output shows that the Delete Java class is capable of connecting to MongoDB and deleting the specified student.

The screenshot shows the MongoDB Compass interface for the `sample_training.grades` collection. At the top, it shows collection statistics: `COLLECTION SIZE: 22.22MB`, `TOTAL DOCUMENTS: 100002`, and `INDEXES TOTAL SIZE: 1.8MB`. Below this, there are tabs for `Find`, `Indexes`, `Schema Anti-Patterns`, `Aggregation`, and `Search Indexes`. The `Find` tab is active. At the top right, there is a button for `INSERT DOCUMENT`. Below the filter bar, it says `QUERY RESULTS 0`.