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SNHU/ CS-340

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**Module 2-1: CRUD in MongoDB**

1. Access the dataset for this assignment, city\_inspections.json, in the /usr/local/datasets directory in your Apporto environment. Using the mongoimport tool and documents found in the city\_inspections.json file, load the database “city” into the “inspections” collection. Complete this task by typing the following commands in the Linux terminal to perform the import in the right directory:

Change into the Apporto directory with the data sets:

cd /usr/local/datasets/

Use the mongo import utility to load the data set:

mongoimport –-username=”${MONGO\_USER}” \

–-password=”${MONGO\_PASS}” –-port=${MONGO\_PORT} \

--host=${MONGO\_HOST} –-dbcity –-collection inspections \

--authenticationDatabase admin –-drop ./city\_inspections.json

A computer screen shot of a computer program

Description automatically generatedTip: In any Linux systems, commands must be exact and use proper syntax and case sensitivity.

1. **Verify your load** by switching to the “city” database and issuing the following queries in the mongo shell:
   1. A screenshot of a computer

      Description automatically generateddb.inspections.find({"id" : "10021-2015-ENFO"})
   2. db.inspections.find({"result":"Out of Business"},{"business\_name":1}).limit(10)

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|  |  |
| --- | --- |
| **Key** | **Value** |
| id | “20032-2020-ACME” |
| certificate\_number | 9998888 |
| business\_name | “ACME Explosives” |
| date | Today’s date |
| result | “Business Padlocked” |
| sector | “Explosive Retail Dealer-999” |
| address | number -> 1721  street -> Boom Road  city -> BRONX  zip -> 10463 |

1. Using the appropriate commands in the mongo shell, **insert a document** to the database named “city” within the collection named “inspections.” Use the following key-value pairs as data for your document.

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Description automatically generatedBe sure the address is inserted as a sub-document, and use the JavaScript function **Date()** for “Today’s date.” Verify your database creation and insertion using the findOne() function in the mongo shell. Provide a **screenshot** as evidence.

1. Answer the following questions using **MongoDB queries**.
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      Description automatically generatedWhat is the distinct list of inspection “sector” in the current inspections collection? How many are in the list? Do not count by hand.
   2. A screenshot of a computer program

      Description automatically generatedWhat is the difference in the date data type for the business named “AUSTIN 201d2” versus your business document insertion of “Acme Explosives”?

For "AUSTIN 2012," the date is represented as a string: 'Jan 22 2016' -String data type.

For "ACME Explosives," the date is represented as an ISODate: ISODate("2023-09-09T06:58:21.453Z") – object data type -BSON.

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     Description automatically generatedHow many businesses have a “Violation Issued”? (See **Value** column above.)

1. Using the appropriate command in the mongo shell, **update the document** with the ID “20032-2020-ACME” in the collection “inspections” in the database “city” with the information below.

|  |  |
| --- | --- |
| **Key** | **Value** |
| business\_name | "New ACME Flowers" |
| result | "Business Re-opened" |
| comments | "Flowers after the explosion" |

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Verify your database update using the appropriate **find()** function in the mongo shell. Provide a **sceenshot** as evidence.

1. Using the database “city” with documents found in the “inspections” collection, perform the tasks listed below. Verify by providing **screenshots** of the results as evidence.
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      Description automatically generated**Update all the documents** that contain the key-value pair "city":"ROSEDALE" in the address subdocument by changing the zip code in the address subdocument to "76114".
   2. A screenshot of a computer program

      Description automatically generated**Remove the first document** with the key-value pair "result":"Violation Issued."