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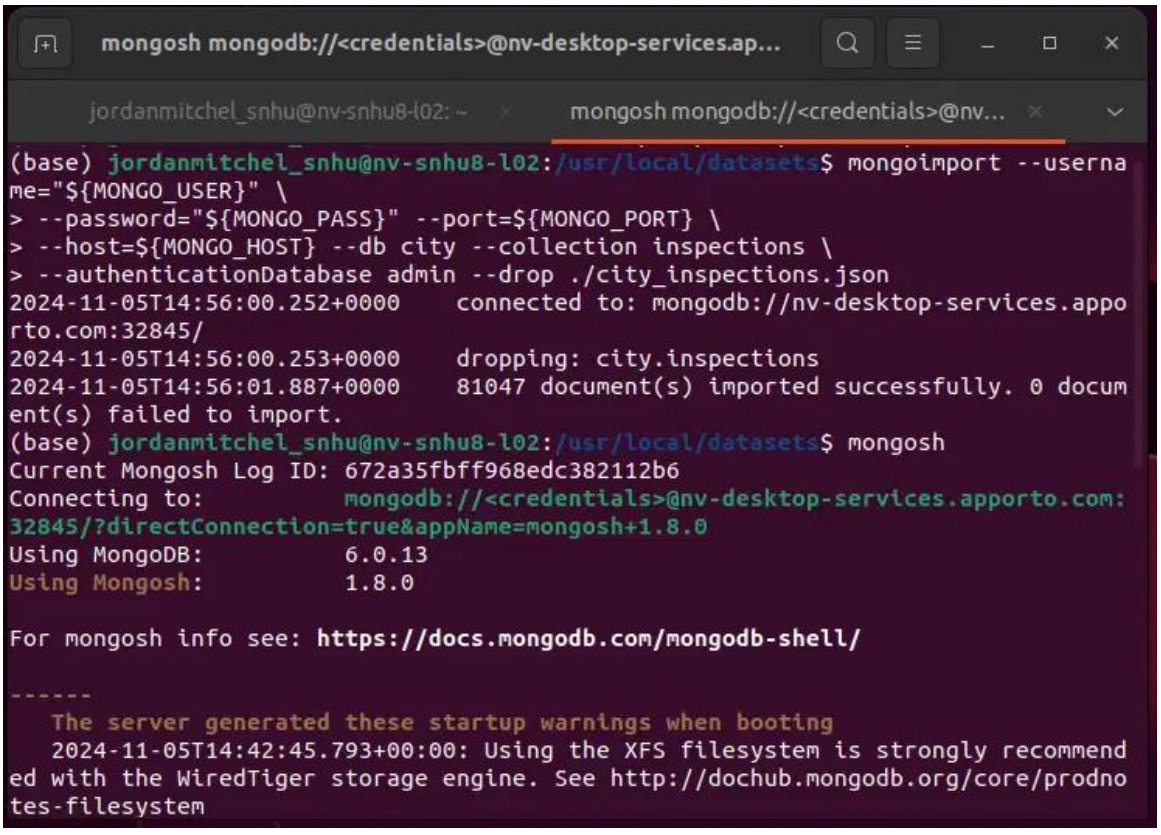
Professor Morris

Assignment: CRUD in MongoDB

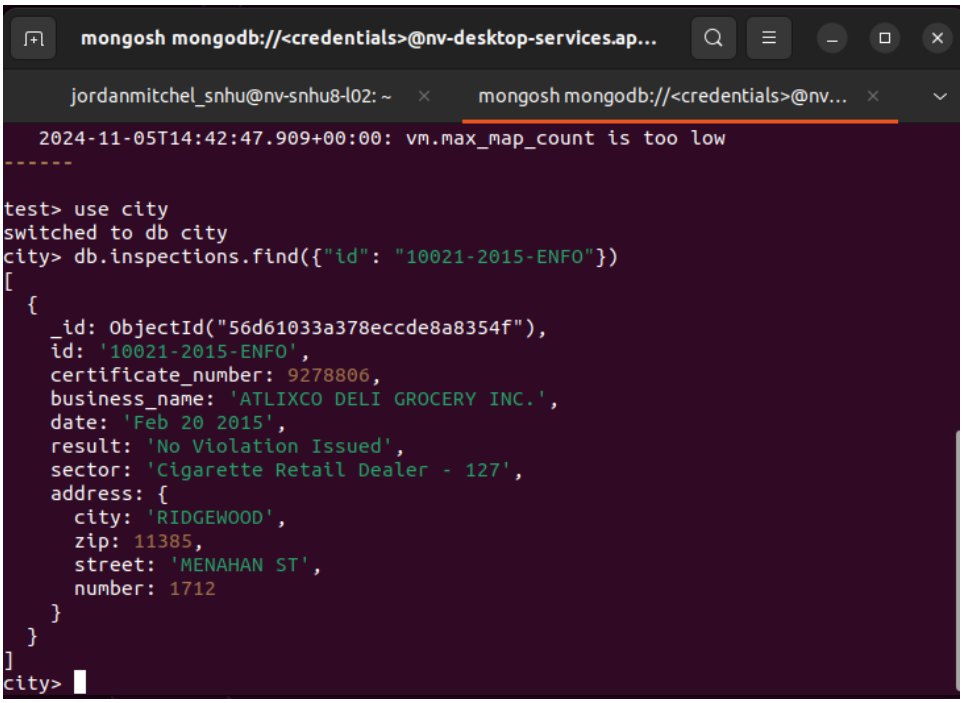
1. *Access the dataset for this assignment, city_inspections.json, in the /usr/local/datasets directory in your Apporto environment. Using the mongoimport tool and documents found in the city_inspections.json file, load the database "city" into the "inspections" collection. Complete this task by typing 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} –-db city –-collection inspections *
--authenticationDatabase admin –-drop ./city_inspections.json

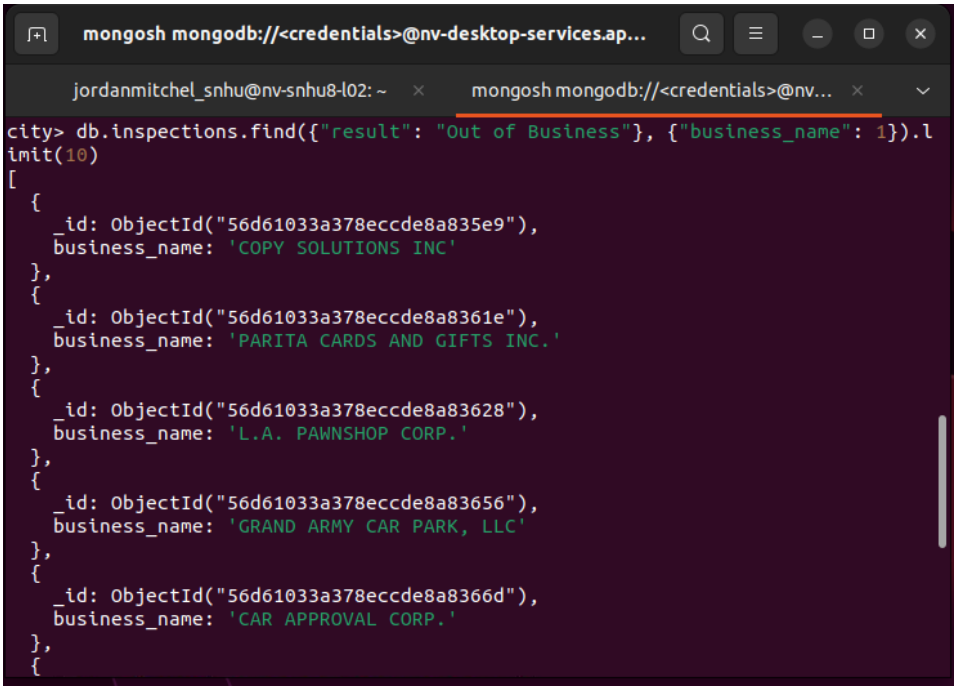


2. Verify your load by “using” the “city” database, and issuing the following queries in the mongo shell:

a. db.inspections.find({"id" : "10021-2015-ENFO"})

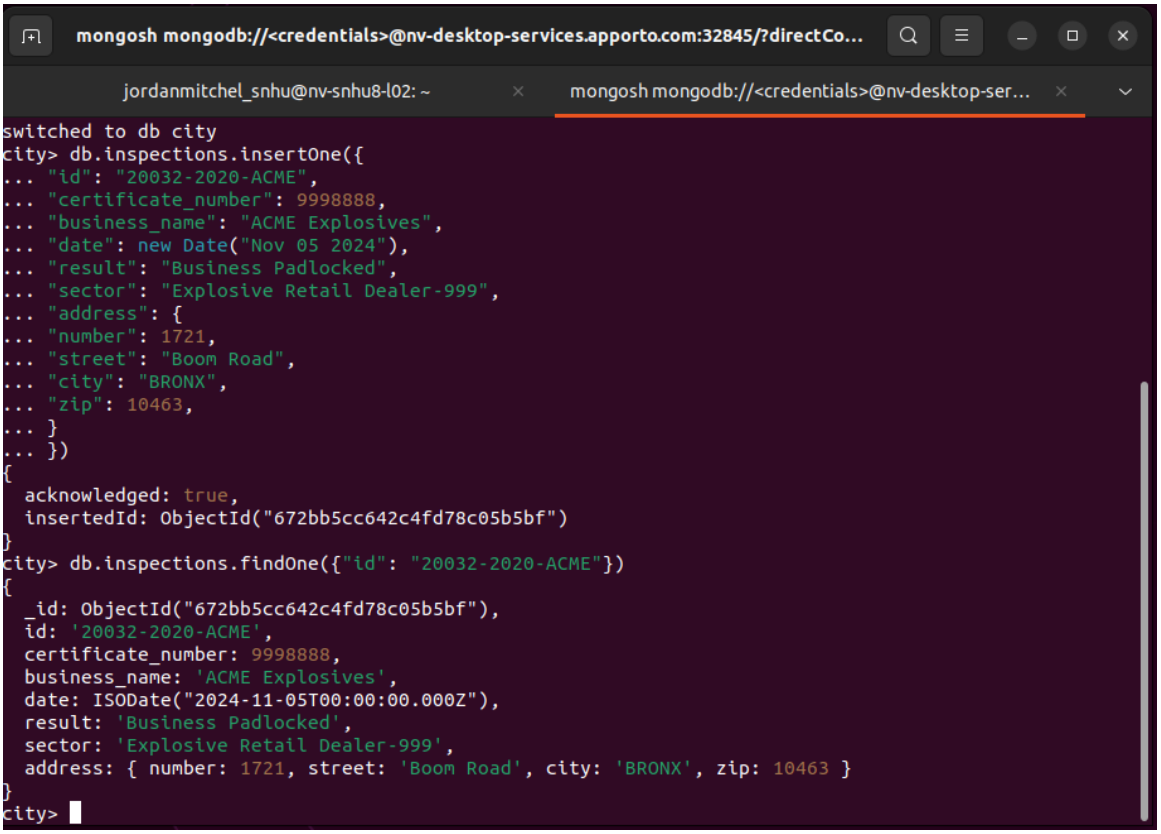


b. db.inspections.find({"result":"Out of Business"},{"business_name":1}).limit(10)



3. 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. Be sure to insert the address as a subdocument 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.

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

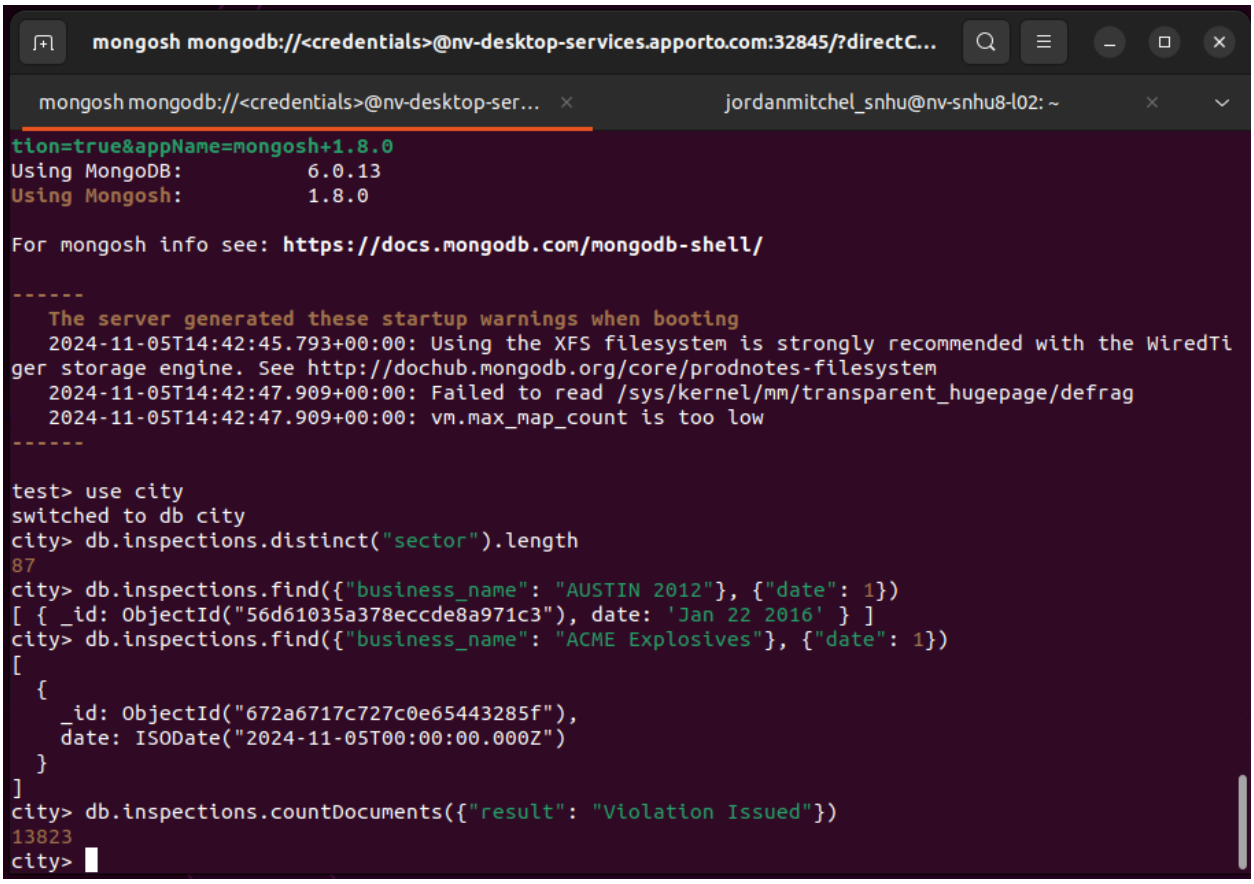


4, Answer the following questions using MongoDB queries.

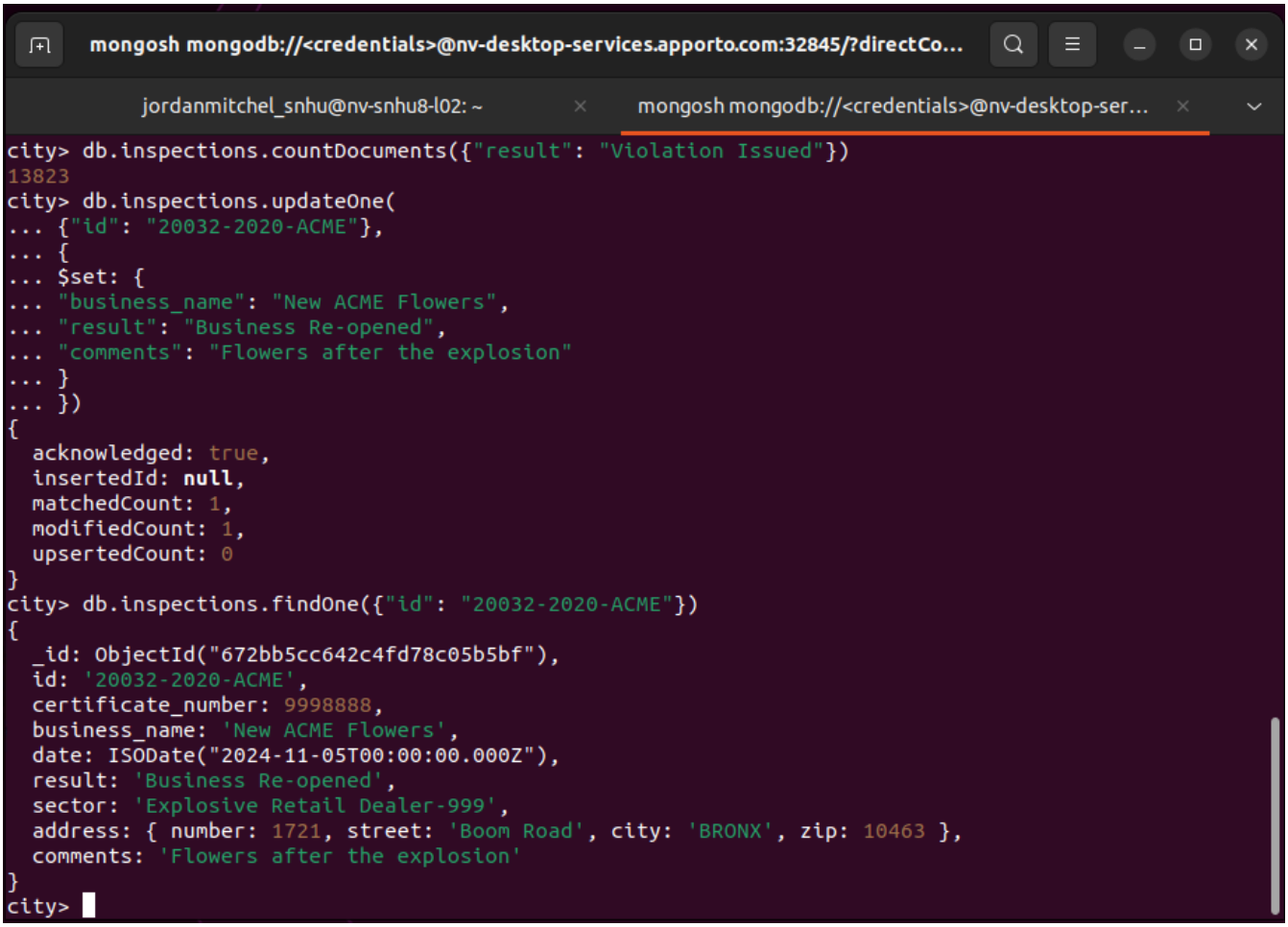
What is the distinct list of inspection “sector” in the current inspections collection? How many are in the list? Do not count by hand.

What is the difference in the date data type for the business named “AUSTIN 2012” versus your business document insertion of “Acme Explosives”?

How many businesses have a “Violation Issued”? (See Value column above.)


mongosh mongodb://<credentials>@nv-desktop-services.apporto.com:32845/?directC...
mongosh mongodb://<credentials>@nv-desktop-ser...
jordanmitchel_snhu@nv-snhu8-l02: ~
tion=true&appName=mongosh+1.8.0
Using MongoDB: 6.0.13
Using Mongosh: 1.8.0
For mongosh info see: https://docs.mongodb.com/mongodb-shell/
The server generated these startup warnings when booting
2024-11-05T14:42:45.793+00:00: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem
2024-11-05T14:42:47.909+00:00: Failed to read /sys/kernel/mm/transparent_hugepage/defrag
2024-11-05T14:42:47.909+00:00: vm.max_map_count is too low
test> use city
switched to db city
city> db.inspections.distinct("sector").length
87
city> db.inspections.find({"business_name": "AUSTIN 2012"}, {"date": 1})
[{ _id: ObjectId("56d61035a378eccde8a971c3"), date: 'Jan 22 2016' }]
city> db.inspections.find({"business_name": "ACME Explosives"}, {"date": 1})
[
{
_id: ObjectId("672a6717c727c0e65443285f"),
date: ISODate("2024-11-05T00:00:00.000Z")
}
]
city> db.inspections.countDocuments({"result": "Violation Issued"})
13823
city>

5. 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.



6. 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.

a. **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".

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