

Questions:

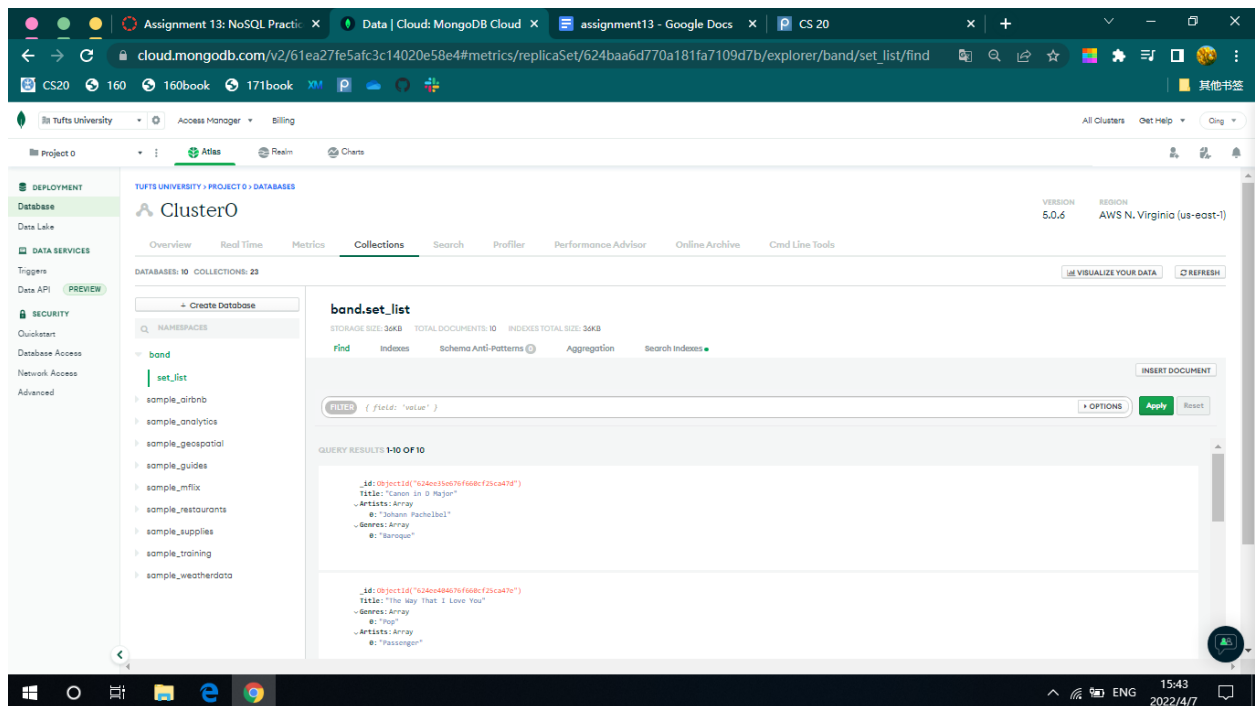
1. Identify the tools used to work with an SQL and a NoSQL database.

For the last assignment, we used phpMyAdmin on a C-panel host such as Siteground to work with SQL databases. We also used PHP to request data from the database. For working with NoSQL databases, we used MongoDB Atlas to visualize the databases and collections, but we can also use the MongoDB shell to see or update our databases.

2. Which database do you prefer working with so far- SQL or NoSQL? Explain your answer.

For now I prefer using NoSQL databases with MongoDB. With NoSQL, particularly MongoDB, it's easier to store all related information in one place (in one document) so we don't have to use foreign/primary keys and check between multiple tables, which is a great advantage. In addition, the format of documents is very similar to JSON, so it is easy to work with and to learn the syntax. Also, the interface of MongoDB is cleaner and more concise, at least when compared to phpMyAdmin. However, with MongoDB Atlas, whenever I want to insert documents, I have to insert them one by one, even if the fields are the same, which can be a bit repetitive and prone to (spelling) errors.

Part I:



Assignment 13: NoSQL Practi... Data | Cloud: MongoDB Cloud assignment13 - Google Docs CS 20

cloud.mongodb.com/v2/61ea27fe5afc3c14020e58e4#metrics/replicaSet/624baa6d770a181fa7109d7b/explorer/band/set_list/find

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Project 0 Atlas Realm Charts

DEPLOYMENT Database Data Lake DATA SERVICES Triggers Data API PREVIEW SECURITY Quickstart Database Access Network Access Advanced

Create Database NAMESPACES

band set_list sample_airbnb sample_analytics sample_geospatial sample_guides sample_mflix sample_restaurants sample_supplies sample_training sample_weatherdata

band.set_list

STORAGE SIZE: 36KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema And Patterns Aggregation Search Indexes

INSERT DOCUMENT

Filter { field: 'value' } OPTIONS Apply Reset

```
{
  "title": "How Long Will I Love You",
  "artists": [
    {
      "name": "Jon Boden"
    },
    {
      "name": "Sam Sweeney"
    },
    {
      "name": "Tom Coleman"
    }
  ],
  "genres": [
    "Pop"
  ]
}
```

```
{
  "_id": "ObjectId('624ba489676f68bf23ca488')",
  "title": "A Thousand Years",
  "artists": [
    {
      "name": "Christina Perri"
    }
  ],
  "genres": [
    "Pop"
  ]
}
```

```
{
  "_id": "ObjectId('624ba4cc076f68bf23ca489')",
  "title": "I Just Called To Say I Love You",
  "artists": [
    {
      "name": "Stevie Wonder"
    }
  ],
  "genres": [
    "Pop"
  ]
}
```

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cloud.mongodb.com/v2/61ea27fe5afc3c14020e58e4#metrics/replicaSet/624baa6d770a181fa7109d7b/explorer/band/set_list/find

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Project 0 Atlas Realm Charts

DEPLOYMENT Database Data Lake DATA SERVICES Triggers Data API PREVIEW SECURITY Quickstart Database Access Network Access Advanced

Namespaces band set_list sample_airbnb sample_analytics sample_geospatial sample_guides sample_mflix sample_restaurants sample_supplies sample_training sample_weatherdata

band.set_list STORAGE SIZE: 36KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

FILTER { field: "value" } OPTIONS Apply Reset

```
{
  "_id": "624a4fa076f60bf23ca482",
  "Title": "I'll Rondo",
  "Artists": Array,
  "0": "Jimmy Fontana",
  "Genres": Array,
  "0": "Pop"
}
```

```
{
  "_id": "624a6519b76f60bf23ca483",
  "Title": "Only You",
  "Artists": Array,
  "0": "The Flying Pickets",
  "Genres": Array,
  "0": "New Wave",
  "1": "Synth-Pop"
}
```

```
{
  "_id": "624a6543b76f60bf23ca484",
  "Title": "Tu Lles Al Tossal",
  "Artists": Array,
  "0": "Teresa Bonelli",
  "Genres": Array
}
```

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cloud.mongodb.com/v2/61ea27fe5afc3c14020e58e4#metrics/replicaSet/624baa6d770a181fa7109d7b/explorer/band/set_list/find

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Project 0 Atlas Realm Charts

DEPLOYMENT Database Data Lake DATA SERVICES Triggers Data API PREVIEW SECURITY Quickstart Database Access Network Access Advanced

Namespaces band set_list sample_airbnb sample_analytics sample_geospatial sample_guides sample_mflix sample_restaurants sample_supplies sample_training sample_weatherdata

band.set_list STORAGE SIZE: 36KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB Find Indexes Schema Anti-Patterns Aggregation Search Indexes

INSERT DOCUMENT

FILTER { field: "value" } OPTIONS Apply Reset

```
{
  "_id": "624a656a76f60bf23ca485",
  "Title": "Dance With Me",
  "Artists": Array,
  "0": "beabadoobee",
  "Genres": Array,
  "0": "Pop"
}
```

```
{
  "_id": "624a658a76f60bf23ca486",
  "Title": "Perfect Symphony",
  "Artists": Array,
  "0": "Ed Sheeran",
  "1": "Andrea Bocelli",
  "Genres": Array,
  "0": "Pop",
  "1": "Latin Ballad"
}
```

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Part 2:

Atlas atlas-10bzts-shard-0 [primary] band> **show dbs**

```
band          73.7 kB
sample_airbnb  55.3 MB
sample_analytics  9.8 MB
sample_geospatial 1.77 MB
sample_guides   73.7 kB
sample_mflix    49.3 MB
sample_restaurants 6.96 MB
sample_supplies  1.19 MB
sample_training  62.8 MB
sample_weatherdata 2.93 MB
admin           344 kB
```

local 3.95 GBAtlas atlas-10bzts-shard-0 [primary] myFirstDatabase> **use band**
switched to db band

Atlas atlas-10bzts-shard-0 [primary] band> **show collections**

set_list

Atlas atlas-10bzts-shard-0 [primary] band> **db.set_list.find()**

```
[
  {
    _id: ObjectId("624ee35e676f660cf25ca47d"),
    Title: 'Canon in D Major',
    Artists: [ 'Johann Pachelbel' ],
    Genres: [ 'Baroque' ]
  },
  {
    _id: ObjectId("624ee404676f660cf25ca47e"),
    Title: 'The Way That I Love You',
    Genres: [ 'Pop' ],
    Artists: [ 'Passenger' ]
  },
  {
    _id: ObjectId("624ee441676f660cf25ca47f"),
    Title: 'How Long Will I Love You',
    Artists: [ 'Jon Boden', 'Sam Sweeney', 'Ben Coleman' ],
    Genres: [ 'Folk Rock' ]
  },
  {
```

```
{
  _id: ObjectId("624ee489676f660cf25ca480"),
  Title: 'A Thousand Years',
  Artists: [ 'Christina Perri' ],
  Genres: [ 'Pop' ]
},
{
  _id: ObjectId("624ee4cc676f660cf25ca481"),
  Title: 'I Just Called To Say I Love You',
  Artists: [ 'Stevie Wonder' ],
  Genres: [ 'R&B' ]
},
{
  _id: ObjectId("624ee4fa676f660cf25ca482"),
  Title: 'Il Mondo',
  Artists: [ 'Jimmy Fontana' ],
  Genres: [ 'Pop' ]
},
{
  _id: ObjectId("624ee519676f660cf25ca483"),
  Title: 'Only You',
  Artists: [ 'The Flying Pickets' ],
  Genres: [ 'New Wave', 'Synth-Pop' ]
},
{
  _id: ObjectId("624ee543676f660cf25ca484"),
  Title: 'Tu Eres Mi Tesoro',
  Artists: [ 'Andrea Bocelli' ],
  Genres: [ 'Pop' ]
},
{
  _id: ObjectId("624ee56a676f660cf25ca485"),
  Title: 'Dance With Me',
  Artists: [ 'beabadoobee' ],
  Genres: [ 'Pop' ]
},
{
  _id: ObjectId("624ee58a676f660cf25ca486"),
  Title: 'Perfect Symphony',
```

```
Artists: [ 'Ed Sheeran', 'Andrea Bocelli' ],
Genres: [ 'Pop', 'Latin Ballad' ]
}
]
Atlas atlas-10bzts-shard-0 [primary] band> db.set_list.find({Genres: "Pop"}, {Title:1, _id: 0})
[
  { Title: 'The Way That I Love You' },
  { Title: 'A Thousand Years' },
  { Title: 'Il Mondo' },
  { Title: 'Tu Eres Mi Tesoro' },
  { Title: 'Dance With Me' },
  { Title: 'Perfect Symphony' }
]
Atlas atlas-10bzts-shard-0 [primary] band>
```