

Database System Lab

Task Name: Asjid Ahmed

Roll No: P17-6124

DB LAB Task: 12

Instructor: Muhammad Usman.

Exercise # 1

- Create a database named your rollno_section (i.e. 18P0014_6B)

use 17P6124_6B;

```
> use 17P6124_6B;
switched to db 17P6124_6B
```

Exercise # 2

- Create collections named cities and moviepeople_1000

db.createCollection("cities");

db.createCollection("cmoviepeople_1000");

show collections;

```
> db.createCollection("cities");
{ "ok" : 1 }
> db.createCollection("moviepeople_1000");
{ "ok" : 1 }
> show collections
cities
moviepeople_1000
>
```

Exercise # 3

- Import the documents cities.jsonl and moviepeople-1000.jsonl into the cities and moviepeople collection respectively

```
mongoimport --port 27017 --authenticationDatabase "admin" -u "myUserAdmin" -p "abc123" -d 17P6124_6B -c cities --file c:\Datasets\cities.jsonl
```

```
mongoimport --port 27017 --authenticationDatabase "admin" -u "myUserAdmin" -p "abc123" -d 17P6124_6B -c moviepeople_1000 --file c:\Datasets\moviepeople-1000.jsonl
```

```
C:\Program Files\MongoDB\Server\4.4\bin>mongoimport --port 27017 --authenticationDatabase "admin" -u "myUserAdmin" -p "abc123" -d 17P6124_6B -c cities --file c:\Datasets\cities.jsonl
2021-06-27T09:13:42.720+0500   connected to: mongodb://localhost:27017/
2021-06-27T09:13:45.720+0500   [#####] 17P6124_6B.cities   13.6MB/13.7MB (99.4%)
2021-06-27T09:13:45.742+0500   [#####] 17P6124_6B.cities   13.7MB/13.7MB (100.0%)
2021-06-27T09:13:45.742+0500   99838 document(s) imported successfully. 0 document(s) failed to import.

C:\Program Files\MongoDB\Server\4.4\bin>mongoimport --port 27017 --authenticationDatabase "admin" -u "myUserAdmin" -p "abc123" -d 17P6124_6B -c moviepeople_1000 --file c:\Datasets\moviepeople-1000.jsonl
2021-06-27T09:15:19.689+0500   connected to: mongodb://localhost:27017/
2021-06-27T09:15:19.947+0500   1000 document(s) imported successfully. 0 document(s) failed to import.
```

```
> use 17P6124_6B;
switched to db 17P6124_6B
> db.cities.find( ).pretty()
{
  "_id" : ObjectId("60d7faf6ced93499c298ca19"),
  "name" : "la Massana",
  "country" : "AD",
  "timezone" : "Europe/Andorra",
  "population" : 7211,
  "location" : {
    "longitude" : 42.54499,
    "latitude" : 1.51483
  }
}
{
  "_id" : ObjectId("60d7faf6ced93499c298ca1a"),
  "name" : "les Escaldes",
  "country" : "AD",
  "timezone" : "Europe/Andorra",
  "population" : 15853,
  "location" : {
    "longitude" : 42.50729,
    "latitude" : 1.53414
  }
}
```

```

> db.moviepeople_1000.find( ).pretty()
{
  "_id" : ObjectId("60d7fb5744a2ffd6c4472b7e"),
  "person-name" : "Bell, William J.",
  "info" : {
    "quotes" : [
      "My wife, 'Lee Phillip Bell' (qv) had her own television show in Chicago when I started doing serials. We both knew there were problems with secu
the television business, so we promised each other that if one of us got fired, the other would quit his job and we'd go live in Europe for a year. Neither one of us wer
ired, and we've been working ever since.",
      "On 'Irna Phillips' (qv): I used to come home for lunch in grammar school and listen to [error] on the radio. After the title the announcer would
eated by Irna Phillips'. Her name was ingrained in my mind. I met Irna in 1954 and I asked I could try writing for her. She let me write a week of sample scripts.",
      "In 1992: I imagine the day will come when _The Bold and the Beautiful (1987)_ (qv) becomes an hour show and I'd like to create another soap. It
fun to do a play, but I don't know if I'll ever get around to it. Scripting daytime is very consuming. But it's exciting to see what you write come to life every day.",
      "On _The Young and the Restless (1973)_ (qv): I absolutely loved the Fosters and the Brooks. It took us three-and-a half years on the air to go t
place. That was exciting, because we were doing different kinds of stories with young people as a focus.",
      "On writing for daytime: You have to have darn good characters that people like, admire, can relate to or hate; but feel some kind of emotion abo
ou have to have interesting stories with a heartbeat to them stories [viewers] can relate too, escape with, and learn from in terms of social issues. I'm a strong believ
we're here to do more than entertain, that we're here to impact on the lives of our audience."
    ],
    "trivia" : [
      "Father-in-law of 'Maria Arena Bell' (qv) and 'Colleen Bell (II)' (qv).",
      "Said to have contributed to the writing of some 15,000 daytime TV soap-opera episodes.",
      "Father of 'Lauralee Bell' (qv), 'William J. Bell Jr.' (qv), and 'Bradley Bell (I)' (qv).",
    ],
    "birthnotes" : [
      "Chicago, Illinois, USA"
    ],
    "birthdate" : [
      "6 March 1927"
    ],
    "deathdate" : [
      "29 April 2005"
    ],
    "spouse" : [
      "Lee Phillip Bell' (qv) (October 1954 - 29 April 2005) (his death); 3 children"
    ],
    "birthname" : [
      "Bell, William Joseph"
    ],
    "books" : [
      "Maloney, Michael with 'Lee Phillip Bell' (qv). _The Young and Restless Life of William J. Bell: Creator of The Young and the Restless and The Bo
he Beautiful._ Naperville, IL: Sourcebooks, 2012. ISBN 1402272111"
    ],
    "article" : [
      "The New York Times (USA), 3 May 2005, pg. B8, by: Associated Press, William J. Bell, 78, Creator of Soap Operas",
      "TV Guide (USA), 22 May 2005, Vol. 53, Iss. 21, pg. 13, by: Michael Logan, Tribute: William J. Bell",
      "NY Soaps Examiner (USA), 18 June 2010, by: Nancy Hughes, Proper Manors An Interview with Pietro D'Alessio creator of this new soap."
    ],
  },
}

```

Exercise # 4

1) db.cities.find({ "timezone": "Africa/Harare" }).pretty()

```

> db.cities.find( { "timezone": "Africa/Harare" } ).pretty()
{
  "_id" : ObjectId("60d7faf9ced93499c29a4fd6"),
  "name" : "Zvishavane",
  "country" : "ZW",
  "timezone" : "Africa/Harare",
  "population" : 35896,
  "location" : {
    "latitude" : -20.32674,
    "longitude" : 30.06648
  }
}
{
  "_id" : ObjectId("60d7faf9ced93499c29a4fd7"),
  "name" : "Shurugwi",
  "country" : "ZW",
  "timezone" : "Africa/Harare",
  "population" : 17075,
  "location" : {
    "latitude" : -19.67016,
    "longitude" : 30.00589
  }
}

```

2) `db.cities.find({ population : { $gt: 12985000 }}).pretty()`

```
> db.cities.find({"population":{$gt:12985000}}).pretty();
{
  "_id" : ObjectId("60d7faf6ced93499c298ccfb"),
  "name" : "Buenos Aires",
  "country" : "AR",
  "timezone" : "America/Argentina/Buenos_Aires",
  "population" : 13076300,
  "location" : {
    "latitude" : -34.61315,
    "longitude" : -58.37723
  }
}
{
  "_id" : ObjectId("60d7faf7ced93499c298f0ed"),
  "name" : "Shanghai",
  "country" : "CN",
  "timezone" : "Asia/Shanghai",
  "population" : 14608512,
  "location" : {
    "longitude" : 31.22222,
    "latitude" : 121.45806
  }
}
```

3) `db.cities.find({"location.longitude" :{$eq :-58.37723}}, {location:1,population:1}).pretty()`

```
> db.cities.find({"location.longitude" :{$eq :-58.37723}}, {location:1,population:1}).pretty()
{
  "_id" : ObjectId("60d7faf6ced93499c298ccfb"),
  "population" : 13076300,
  "location" : {
    "latitude" : -34.61315,
    "longitude" : -58.37723
  }
}
```

Exercise # 5

`db.cities.update({country:"PK","location.latitude" :{$eq: 73.2122},population:{$eq: 35000}},{$set: {population: 55000}})`

```
> db.cities.update({country:"PK","location.latitude" :{$eq: 73.2122},population:{$eq: 35000}},{$set: {population: 55000}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

`db.cities.find({country:"PK","location.latitude" :{$eq: 73.2122},population:{$eq: 55000}})`

```
> db.cities.find({country:"PK","location.latitude" :{$eq: 73.2122},population:{$eq: 55000}})
{ "_id" : ObjectId("60d7faf6ced93499c299d363"), "name" : "Malakwal City", "country" : "PK", "timezone" : "Asia/Karachi", "population" : 55000, "location" : { "longitude" : 32.55492, "latitude" : 73.2122 } }
>
```

Exercise # 6

```
db.cities.deleteMany({"timezone": "Asia/Karachi", country: "PK" })
```

```
> db.cities.deleteMany({"timezone": "Asia/Karachi", country: "PK" })
{ "acknowledged" : true, "deletedCount" : 424 }
>
```

Exercise # 7

```
db.moviepeople_1000.find({"info.birthname":"Freeman, Crispin McDougal"}).pretty()
```

```
> db.cities.find(db.moviepeople_1000.find({"info.birthname":"Freeman, Crispin McDougal"}).pretty())
uncaught exception: TypeError: db.cities.find(db.moviepeople_1000.find(...).pretty(...)) is not a function :
@ (shell):1:1
> db.moviepeople_1000.find({"info.birthname":"Freeman, Crispin McDougal"}).pretty()
{
  "_id" : ObjectId("60d7fb5744a2ffd6c4472f61"),
  "person-name" : "Freeman, Crispin",
  "info" : {
    "quotes" : [
      "On advice to aspiring voice-over actors: For myself, I'm in the favor of the more versatile kind of voice who can do all sorts of roles and transform. But to do that you have to have chops, and the best way to get them is through the classics, especially Shakespeare. It teaches you a lot about breathing, and idea and intention and rhythm. He's written the characters into the very poetry of the language, and if you try to get into and match his poetry it will take you out of your normal language patterns and that's the beginning of creating a character, not playing your mundane, everyday self. It's so verbally based, and in voice-acting, all you've got is your voice."
    ],
    "trivia" : [
      "Said he was a little nervous about taking on the role of Zelgadis in Slayers because the character had already been voiced by someone else. When it came to reinterpreting the character, he said he thought that Zelgadis had more of an axe to grind.",
      "Fluent in English and Spanish.",
      "Is a big fan of authors 'William Shakespeare (I)' (qv), 'J.R.R. Tolkien' (qv), 'Joseph Campbell (III)' (qv), 'Marshall McLuhan' (qv), and 'William Gibson (II)' (qv).",
      "Is a big fan of anime creators 'Hayao Miyazaki' (qv) and 'Osamu Tezuka (I)' (qv).",
      "Frequently does voice overs for various union and non-union voice production companies for some video games and mostly animes.",
      "Has a younger brother, 'Clark Freeman' (qv), and a younger sister, 'Cassidy Freeman' (qv).",
      "Graduated from Williams College with a B.A. in theater & a minor in computer science",
      "Graduated from Columbia University with an M.F.A. in acting",
      "Is one of the only English-speaking voice actors to voice the same character of all Xenosaga video game series. Crispin was the only voice actor to provide the English voice of Albedo and Gaignun Kukai of the series.",
      "On August 11, 2007, he married 'Izobel Carol' (qv) on The Big Island of Hawaii.",
      "He and Veronica Taylor both came to the anime Slayers series as replacements - she replaced Joan Baker as Amelia and he replaced Daniel Cronin as Zelgadis."
    ],
    "minibiography" : [
      "Crispin is the oldest of three. He has a younger brother, Clark, and youngest sister, Cassidy. All three attended the Latin School of Chicago, where Crispin graduated in a class of 60 in 1990. Crispin had a Mac in 1985. To this day he is still an avid computer geek. He played no official team sports in school, but participated in ad hoc football played in Lincoln Park. Crispin was an active participant in many school plays both on and behind stage. He's also a genuinely nice and humble person."
    ],
    "birthnotes" : [
      "Chicago, Illinois, USA"
    ],
    "relationships" : [
      "Crispin is married to Izobel Carol."
    ]
  }
}
```