

(CL2005) Database Systems Lab

Lab 12 Task

MongoDB CRUD Operation

Submit the doc/txt file containing the query and its output.

- 1) Create a database named your rollno_section (i.e. 18P0014_6B).
- 2) Create collections named cities and moviepeople_1000.
- 3) Import the documents cities.jsonl and moviepeople-1000.jsonl into the cities and moviepeople collection respectively by issuing the following command.
(download the datasets from google class room in Datasets directory)

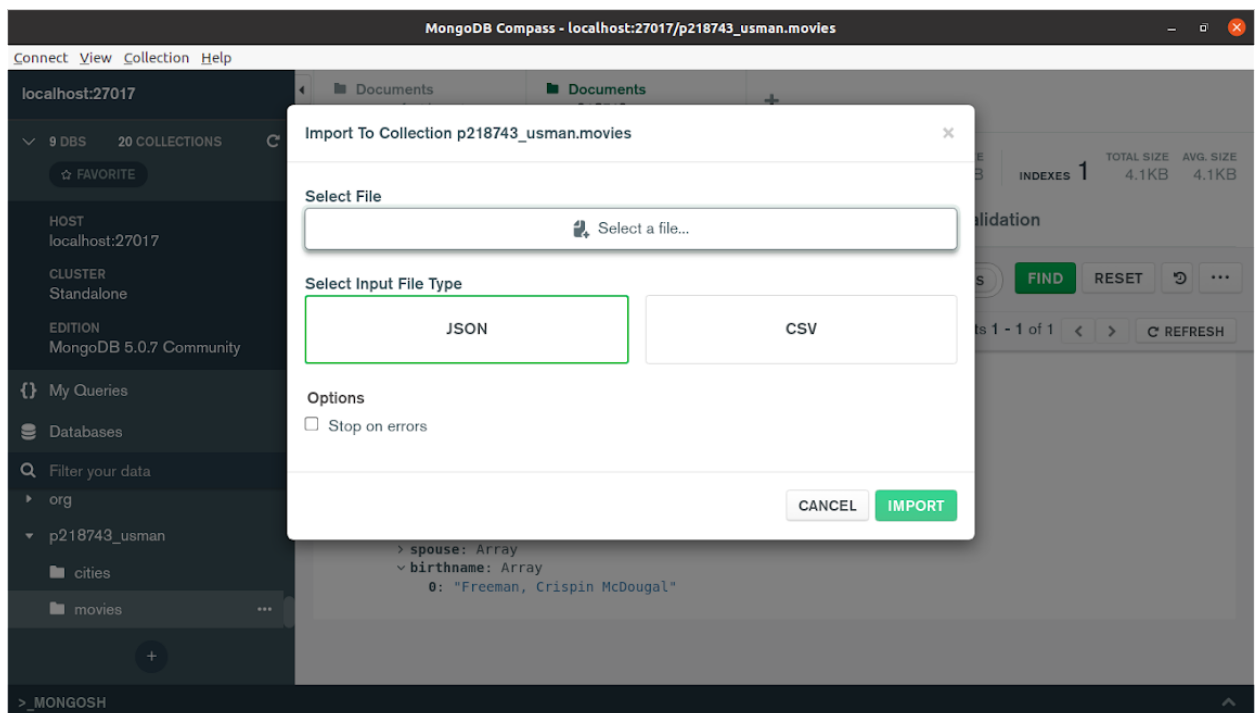
```
mongoimport --db dbName --collection collectionName
--file fileName.json
```

```

C:\>
Administrator: Command Prompt
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>mongoimport --db lab12 --collection cities --file c:\lab_2_datasets\cities.jsonl
2021-06-03T23:41:07.169+0500 connected to: mongodb://localhost/
2021-06-03T23:41:10.170+0500 [#####.....] lab12.cities 5.26MB/13.7MB (38.5%)
2021-06-03T23:41:13.170+0500 [#####.....] lab12.cities 11.0MB/13.7MB (80.7%)
2021-06-03T23:41:14.515+0500 [#####.....] lab12.cities 13.7MB/13.7MB (100.0%)
2021-06-03T23:41:14.516+0500 99838 document(s) imported successfully. 0 document(s) failed to import.
C:\mongodb\bin>mongoimport --db lab12 --collection movie_1000 --file c:\lab_2_datasets\moviepeople-1000.jsonl
2021-06-03T23:41:26.039+0500 connected to: mongodb://localhost/
2021-06-03T23:41:26.512+0500 1000 document(s) imported successfully. 0 document(s) failed to import.
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>
C:\mongodb\bin>

```

alternatively, you could import the collections using MongoDB Compass as well shown below.



After successfully importing these files you would be having the documents layout as shown.

```
> {
  "_id": ObjectId("60b9239f1111a556b5030496"),
  "name": "Chitungwiza",
  "country": "ZW",
  "timezone": "Africa/Harare",
  "population": 55000,
  "location": {
    "latitude": -18.01274,
    "longitude": 31.07555
  }
}
```

Figure 1 Cities Document

```
> {
  "_id": ObjectId("60b92394478b8f1978e44aab"),
  "person-name": "Freeman, Crispin",
  "info": {
    "quotes": [
      "On advice to aspiring voice-over actors: For myself, I'm in the favor ..."
    ],
    "trivia": [
      "Crispin is the oldest of three. He has a younger brother, Clark, and y..."
    ],
    "minibiography": [
      "Crispin is the oldest of three. He has a younger brother, Clark, and y..."
    ],
    "birthnotes": [
      "Chicago, Illinois, USA"
    ],
    "birthdate": [
      "9 February 1972"
    ],
    "height": [
      "6' 2"
    ],
    "spouse": [
      "'Izobel Carol' (qv) (11 August 2007 - present)"
    ],
    "birthname": [
      "Freeman, Crispin McDougal"
    ]
  }
}
```

Movie People Document

- 4) In the mongo shell client, write queries for finding: (*use cities collection*)
 - i. All those cities whose time zone is Africa/Harare.
 - ii. All those cities whose population is greater than 12985000.
 - iii. A city whose longitude equals to -58.37723. Your query should return location and population fields only. (*hint: use projection*)
- 5) Write a query to update the population from 35000 to 55000 whose country is PK and a location latitude of 73.2122. (*hint: use cities collection*)
- 6) Write a query to delete those documents whose timezone is Asia/Karachi and country is PK. (*use cities collection*)
- 7) Write a query for finding the document whose birthname name array contains ("Freeman, Crispin McDougal") as a value. (*use moviepeople collection*)