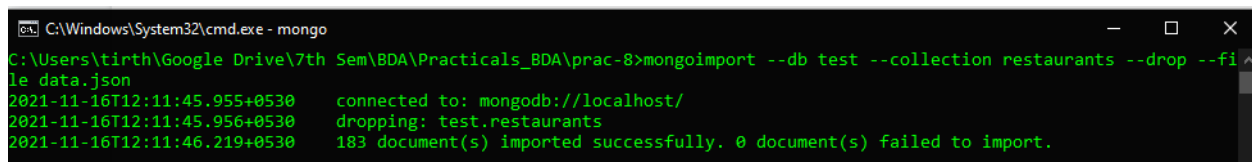


Practical - 8: Setup MongoDB environment in your system. Import Restaurant Dataset and perform CRUD operation.

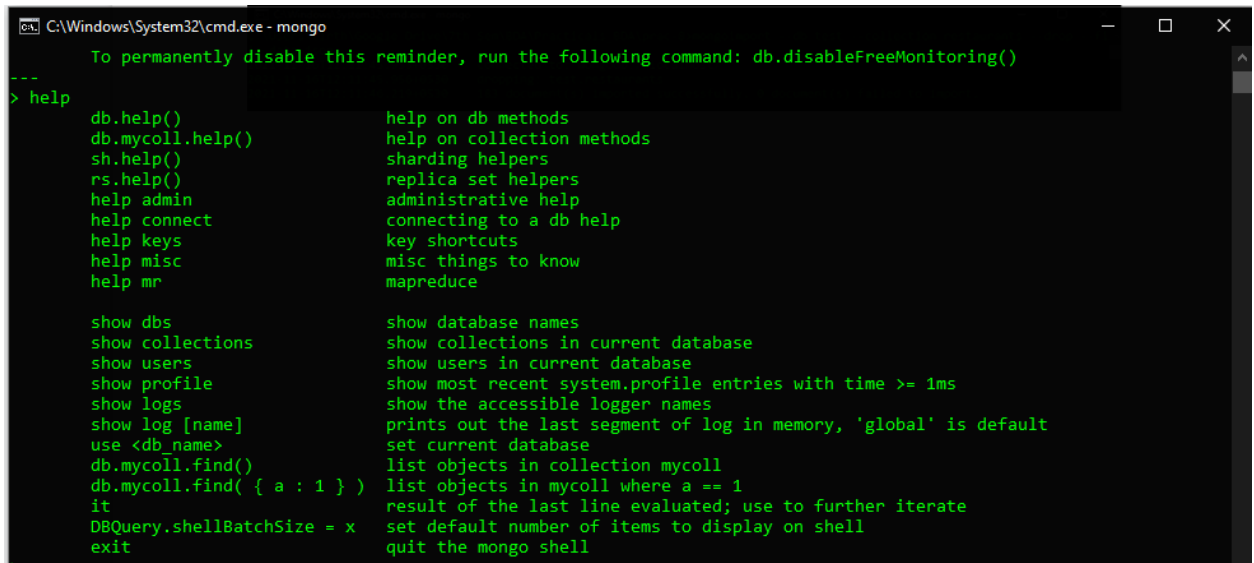
By Divya Mahur (18bce106)

-> import data



```
C:\Windows\System32\cmd.exe - mongo
C:\Users\tirth\Google Drive\7th Sem\BDA\Practicals_BDA\prac-8>mongoimport --db test --collection restaurants --drop --file data.json
2021-11-16T12:11:45.955+0530    connected to: mongodb://localhost/
2021-11-16T12:11:45.956+0530    dropping: test.restaurants
2021-11-16T12:11:46.219+0530    183 document(s) imported successfully. 0 document(s) failed to import.
```

-> help in MongoDB shell



```
C:\Windows\System32\cmd.exe - mongo
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
> help
db.help()                help on db methods
db.mycoll.help()          help on collection methods
sh.help()                 sharding helpers
rs.help()                 replica set helpers
help admin                administrative help
help connect              connecting to a db help
help keys                  key shortcuts
help misc                  misc things to know
help mr                    mapreduce

show dbs                  show database names
show collections           show collections in current database
show users                show users in current database
show profile               show most recent system.profile entries with time >= 1ms
show logs                  show the accessible logger names
show log [name]            prints out the last segment of log in memory, 'global' is default
use <db_name>             set current database
db.mycoll.find()           list objects in collection mycoll
db.mycoll.find( { a : 1 } ) list objects in mycoll where a == 1
it                          result of the last line evaluated; use to further iterate
DBQuery.shellBatchSize = x set default number of items to display on shell
exit                       quit the mongo shell
```

-> Insert a Document

```
C:\Windows\System32\cmd.exe - mongo
exit                               quit the mongo shell
> use test
switched to db test
> db.restaurants.insert( { "address" : { "street" : "2 Avenue", "zipcode" : "10075", "building" : "1480", "coord" : [ -73.9557413, 40.7720266 ], }, "borough" : "Manhattan", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-10-01T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-01-16T00:00:00Z"), "grade" : "B", "score" : 17 } ], "name" : "Vella", "restaurant_id" : "41704620" } )
WriteResult({ "nInserted" : 1 })
>
```

-> Query for All Documents in a Collection

```
C:\Windows\System32\cmd.exe - mongo
> db.restaurants.find()
{ "_id" : ObjectId("55f14312c7447c3da7051b2a"), "URL" : "http://www.just-eat.co.uk/restaurants-indiancom-ch4/menu", "address" : "9 Broughton Hall Road", "address line 2" : "Broughton", "name" : "@Indian.com", "outcode" : "CH4", "postcode" : "00R", "rating" : 6, "type_of_food" : "Curry" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2e"), "URL" : "http://www.just-eat.co.uk/restaurants-042-restaurant-e11/menu", "address" : "885 High Road Leytonstone", "address line 2" : "London", "name" : "042 Restaurant & Bar", "outcode" : "E11", "postcode" : "1HR", "rating" : 3, "type_of_food" : "African" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2f"), "URL" : "http://www.just-eat.co.uk/restaurants-1-2-3-chinese-rowlands-gill/menu", "address" : "Unit 4 Spencer House", "address line 2" : "Swalwell", "name" : "1 2 3 Chinese", "outcode" : "NE16", "postcode" : "3DS", "rating" : 4.5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b30"), "URL" : "http://www.just-eat.co.uk/restaurants-1-2-3-chinese-rowlands-gill/menu", "address" : "Unit 4 Spencer House", "address line 2" : "Swalwell", "name" : "1 2 3 Chinese", "outcode" : "NE16", "postcode" : "3DS", "rating" : 4.5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b31"), "URL" : "http://www.just-eat.co.uk/restaurants-100-degrees-chinese-restaurant-pontypriidd/menu", "address" : "67 Park Street", "address line 2" : "Treforest", "name" : "100 Degrees Chinese Restaurant", "outcode" : "CF37", "postcode" : "1SN", "rating" : 5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b32"), "URL" : "http://www.just-eat.co.uk/restaurants-100menu-wn1/menu", "address" : "50 Wallgate", "address line 2" : "Wigan", "name" : "100 Menu", "outcode" : "WN1", "postcode" : "1JU", "rating" : 5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2c"), "URL" : "http://www.just-eat.co.uk/restaurants-042-restaurant-e11/menu", "address" : "885 High Road Leytonstone", "address line 2" : "London", "name" : "042 Restaurant & Bar", "outcode" : "E11", "postcode" : "1HR", "rating" : 3, "type_of_food" : "African" }
{ "_id" : ObjectId("55f14312c7447c3da7051b29"), "URL" : "http://www.just-eat.co.uk/restaurants-atthairestaurant/menu", "address" : "30 Greyhound Road Hammersmith", "address line 2" : "London", "name" : "@ Thai Restaurant", "outcode" : "W6", "postcode" : "8NX", "rating" : 4.5, "type_of_food" : "Thai" }
{ "_id" : ObjectId("55f14312c7447c3da7051b28"), "URL" : "http://www.just-eat.co.uk/restaurants-atthairestaurant/menu", "address" : "30 Greyhound Road Hammersmith", "address line 2" : "London", "name" : "@ Thai Restaurant", "outcode" : "W6", "postcode" : "8NX", "rating" : 4.5, "type_of_food" : "Thai" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2b"), "URL" : "http://www.just-eat.co.uk/restaurants-007takeaway-s65/menu", "address" : "6 Drummond Street", "address line 2" : "Rotherham", "name" : "007 Takeaway", "outcode" : "S65", "postcode" : "111" }
```

```
> db.restaurants.find( { "borough" : "Manhattan" } )
{ "_id" : ObjectId("619355370f9ecd9fb9147b45"), "address" : { "street" : "2 Avenue", "zipcode" : "10075", "building" : "1480", "coord" : [ -73.9557413, 40.7720266 ] }, "borough" : "Manhattan", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-10-01T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-01-16T00:00:00Z"), "grade" : "B", "score" : 17 } ], "name" : "Vella", "restaurant_id" : "41704620" }
>
```

```
> db.restaurants.find( { "address.zipcode" : "10075" } )
{ "_id" : ObjectId("619355370f9ecd9fb9147b45"), "address" : { "street" : "2 Avenue", "zipcode" : "10075", "building" : "1480", "coord" : [ -73.9557413, 40.7720266 ] }, "borough" : "Manhattan", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-10-01T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-01-16T00:00:00Z"), "grade" : "B", "score" : 17 } ], "name" : "Vella", "restaurant_id" : "41704620" }
>
```

-> Specify Conditions with Operators

```
> db.restaurants.find( { "grades.score": { $lt: 10 } } )
>
> db.restaurants.find( { "grades.score": { $lt: 30 } } )
{ "_id" : ObjectId("619355370f9ecd9fb9147b45"), "address" : { "street" : "2 Avenue", "zipcode" : "10075", "building" : "1480", "coord" : [ -73.9557413, 40.7720266 ] }, "borough" : "Manhattan", "cuisine" : "Italian", "grades" : [ { "date" : ISODate("2014-10-01T00:00:00Z"), "grade" : "A", "score" : 11 }, { "date" : ISODate("2014-01-16T00:00:00Z"), "grade" : "B", "score" : 17 } ], "name" : "Vella", "restaurant_id" : "41704620" }
```

-> Sort Query Results

```
> db.restaurants.find().sort( { "borough": 1, "address.zipcode": 1 } )
{ "_id" : ObjectId("55f14312c7447c3da7051b2a"), "URL" : "http://www.just-eat.co.uk/restaurants-indiancom-cress" : "9 Broughton Hall Road", "address line 2" : "Broughton", "name" : "@Indian.com", "outcode" : "CH4", "0QR", "rating" : 6, "type_of_food" : "Curry" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2e"), "URL" : "http://www.just-eat.co.uk/restaurants-042-restaurant", "address" : "885 High Road Leytonstone", "address line 2" : "London", "name" : "042 Restaurant & Bar", "c", "postcode" : "1HR", "rating" : 3, "type_of_food" : "African" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2f"), "URL" : "http://www.just-eat.co.uk/restaurants-1-2-3-chinese", "address" : "Unit 4 Spencer House", "address line 2" : "Swalwell", "name" : "1 2 3 Chinese", "ou", "postcode" : "3DS", "rating" : 4.5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b30"), "URL" : "http://www.just-eat.co.uk/restaurants-1-2-3-chinese", "address" : "Unit 4 Spencer House", "address line 2" : "Swalwell", "name" : "1 2 3 Chinese", "ou", "postcode" : "3DS", "rating" : 4.5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b31"), "URL" : "http://www.just-eat.co.uk/restaurants-100-degrees", "address" : "67 Park Street", "address line 2" : "Treforest", "name" : "100 Degree", "outcode" : "CF37", "postcode" : "15N", "rating" : 5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b32"), "URL" : "http://www.just-eat.co.uk/restaurants-100menu-wn1", "address" : "50 Wallgate", "address line 2" : "Wigan", "name" : "100 Menu", "outcode" : "WN1", "postcode" : "1JU", "rating" : 5, "type_of_food" : "Chinese" }
{ "_id" : ObjectId("55f14312c7447c3da7051b2c"), "URL" : "http://www.just-eat.co.uk/restaurants-042-restaurant", "address" : "885 High Road Leytonstone", "address line 2" : "London", "name" : "042 Restaurant & Bar", "c", "postcode" : "1HR", "rating" : 3, "type_of_food" : "African" }
```

-> Update Specific Fields

```
> db.restaurants.update(
... { "name" : "Juni" },
... {
... $set: { "cuisine": "American (New)" },
... $currentDate: { "lastModified": true }
... }
... )
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
> _
```

-> Update Multiple Documents

```
> db.restaurants.update(
...   { "address.zipcode": "10016", cuisine: "Other" },
...   {
...     $set: { cuisine: "Category To Be Determined" },
...     $currentDate: { "lastModified": true }
...   },
...   { multi: true }
... )
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
```