

[illegible]

<b>Name</b>	MongoDB: Basics
<b>URL</b>	<a href="https://www.attackdefense.com/challengedetails?cid=230">https://www.attackdefense.com/challengedetails?cid=230</a>
<b>Type</b>	Infrastructure Attacks: MongoDB

**Important Note:** This document illustrates all the important steps required to complete this lab. This is by no means a comprehensive step-by-step solution for this exercise. This is only provided as a reference to various commands needed to complete this exercise and for your further research on this topic. Also, note that the IP addresses and domain names might be different in your lab.

**Q1. How many databases are present in mongodb cluster?**

**Answer: 7**

**Solution:**

Connect to mongodb server running on localhost

**Command: mongo**

```
student@attackdefense:~$ mongo
MongoDB shell version v3.6.3
connecting to: mongodb://127.0.0.1:27017
MongoDB server version: 3.6.3
Welcome to the MongoDB shell.
For interactive help, type "help".
For more comprehensive documentation, see
  http://docs.mongodb.org/
Questions? Try the support group
  http://groups.google.com/group/mongodb-user
Server has startup warnings:
2018-11-08T04:55:16.439+0000 I CONTROL [initandlisten]
2018-11-08T04:55:16.439+0000 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2018-11-08T04:55:16.439+0000 I CONTROL [initandlisten] **           Read and write access to data and configuration is unrestricted.
2018-11-08T04:55:16.440+0000 I CONTROL [initandlisten]
>
```

**Command: show dbs**

```
> show dbs
admin      0.000GB
city       0.002GB
config     0.000GB
flag       0.000GB
local      0.000GB
stats      0.000GB
users      0.000GB
>
```

**Q2. How many collections are present in database users?**

**Answer: 3**

**Commands:**

```
use users
show collections
```

```
> use users
switched to db users
> show collections
banned
current
past
>
```

**Q3. What is the value of flag obtained from the mongodb cluster?**

**Answer:** fl4g\_f0r\_m0ng0\_db

**Commands:**

```
use flag
show collections
db.flag.find()
```

```
> use flag
switched to db flag
> show collections
flag
> db.flag.find()
{ "_id" : ObjectId("5be3c1b689bbb30054dd8397"), "flag" : "fl4g_f0r_m0ng0_db" }
>
```

**Q4. What is the email address of user named “Heather” from “current” user collection?**

**Answer:** mauris.sapien@eueratsemper.ca

**Commands:**

```
use users
db.current.find({"user":"Heather"})
```

```
> use users
switched to db users
> db.current.find({"user":"Heather"})
{ "_id" : ObjectId("5be3c1b689bbb30054dd829c"), "user" : "Heather", "join_date" : "31-12-1969", "email" : "mauris.sapien@eueratsemper.ca", "phone" : "(572) 146-5308" }
>
```

**Q5. How many users are present in “past” collection in users database?**

**Answer:** 179

**Commands:**

```
use users
db.past.count()
```

```
> use users
switched to db users
> db.past.count()
179
>
```

**Q6. How many cities of state “Massachusetts” are present in the collection city in database city?**

**Answer:** 474

**Commands:**

```
use city
db.city.find({"state":"MA"}).count()
```

```
> use city
switched to db city
> db.city.find({"state":"MA"}).count()
474
>
```

**Q7. How many cities have population greater than 15000 in the collection city in database city?**

**Answer:** 5785

**Commands:**

```
use city
db.city.find({"pop":{"$gt":15000}}).count()
```

```
> use city
switched to db city
> db.city.find({"pop":{"$gt":15000}}).count()
5785
>
```

**Q8. How many cities of state "Indiana" have population greater than 15000 in collection "city" in database "city"?**

**Answer:** 130

**Commands:**

```
use city
db.city.find({"$and":[{"pop":{"$gt":15000}},"state":"IN"]}).count()
```

```
> use city
switched to db city
> db.city.find({"$and":[{"pop":{"$gt":15000}},"state":"IN"]}).count()
130
>
```

**Q9. How many cities have population less than 100 or belongs to state “Indiana” in collection “city” in database “city”?**

**Answer:** 1376

**Commands:**

use city

db.city.find({\$or:[{pop:{\$lt:100}},{"state":"IN"}]}).count()

```
> use city
switched to db city
> db.city.find({$or:[{pop:{$lt:100}},{"state":"IN"}]}).count()
1376
>
```

**Q10. How many Cities have their name starting with “AN” in collection “city” in database “city”?**

**Answer:** 154

**Commands:**

use city

db.city.find({"city":{\$regex:"^AN.\*"}}).count()

```
> use city
switched to db city
> db.city.find({"city":{$regex:"^AN.*"}}).count()
154
>
```

**Q11. What is the name of 101st city in collection “city” when sorted in ascending order according to “city” in database “city”?**

**Answer:** ADDY

**Commands:**

use city

db.city.find().sort({"city":1}).skip(100).limit(1)



```
> use city
switched to db city
> db.city.find().sort({"city":1}).skip(100).limit(1)
{ "_id" : "99101", "city" : "ADDY", "loc" : [ -117.892383, 48.44769 ], "pop" : 1226, "state" : "WA" }
>
```

**Q12. What is the average population in collection “city” in database “city” (Upto two decimal places)?**

**Answer:** 8462.79

**Commands:**

```
use city
db.city.aggregate({"$group":{"_id":null,avg:{$avg:"$pop"}}})
```

```
> use city
switched to db city
> db.city.aggregate({"$group":{"_id":null,avg:{$avg:"$pop"}}})
{ "_id" : null, "avg" : 8462.794262937348 }
>
```

**References:**

1. MongoDB (<https://www.mongodb.com/>)
2. mongo (<https://docs.mongodb.com/manual/mongo/>)