

Quick Start MongoDB

Installation on MAC OS

Download OSX Community Server

Download tgz to Downloads

Open terminal in downloads and extract

Copy to user local bin directory

In the unzipped folders move into the 'bin' folder via terminal

Then using sudo

```
sudo cp * /usr/local/bin
```

Make directory for databases

```
sudo mkdir -p /data/db
```

This is the directory that mongo will look for as created with sudo need to open up for other users

```
sudo chmod 777 /data  
sudo chmod 777 /data/db
```

To test run

```
mongod
```

Should be running on port 27017

And then in a new terminal window run

```
Mongo
```

You should now have the shell

Test with:

```
show dbs
```

Or db will show working with the test database

Tutorial

Create a test database with:

```
use myTest
```

Switches to new database but isn't created until a collection is added.

Collections of documents = rows in a table

```
db.students.insert({"name":"Bob","email":"bob@bob.com"})
```

Make sure are dumb double quotes

Once inserted the database and collection are created.

Note: Can you Javascript in the shell ie:

```
var myObject = {"name":"Bob","email":"bbob.com"}  
print(myObject)
```

When coding more than one line of JS adding { adds a new line automatically

Try with an array loop = forEach doesn't work for object looping

INSERTING DATA FROM A JSON FILE

On normal terminal (not mongo)

```
mongoimport --db myTest --collection films --jsonArray --file movies.json
```

In the mongo terminal:

```
db.films.count();
db.films.find();
```

Core commands

show dbs	List of databases on the server
use db DBNAME	Switch to the database to use - creates if didn't exist
show collections	List all the collections for that db
show databases	List of available databases
db.collection.count()	Count number of documents in a collection
db.collection.find()	No parameter finds everything
db.collection.find({"name":"Bob"})	
db.collection.createIndex({"number":1})	Creates an index - use one for ascending

<https://docs.mongodb.com/manual/reference/sql-comparison/>

DO THIS AFTER LOADING A LARGE DATA SET - ie load films and use filmID as the index.

```
db.students.find({"name":"Bob"}).explain()
db.students.find({"name":"Bob"}).explain("executionStats")
```