SComputer Engineering Department
CMPE283-02 – Virtualization Technologies

Student Name: **Piyush Bansal**
Instructor: **Simon Shim**
Semester: **Spring, 2015**

Lab #1– Cross Host Linking Docker Containers

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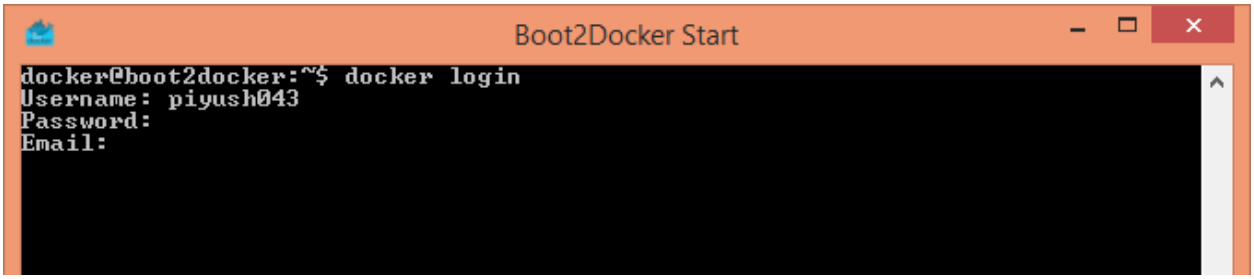
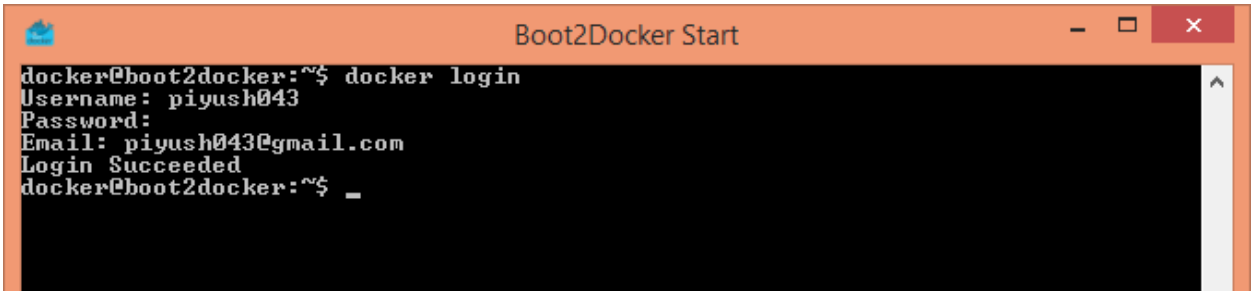
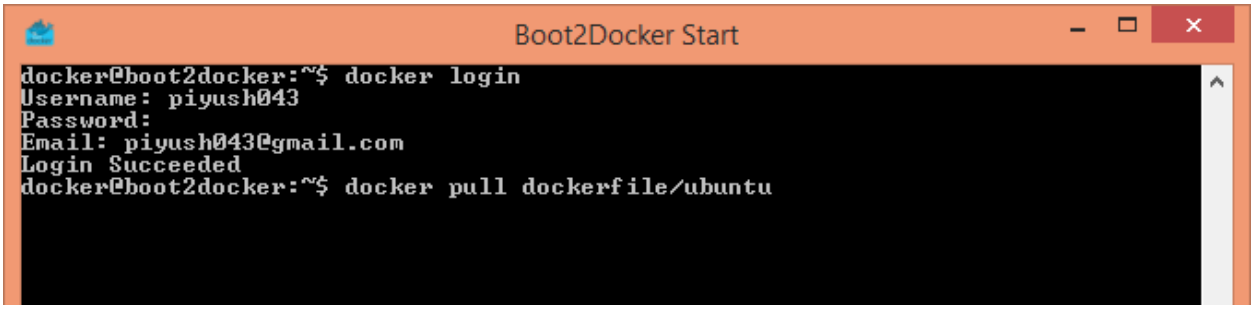
1. Login to docker using below command and enter credentials.



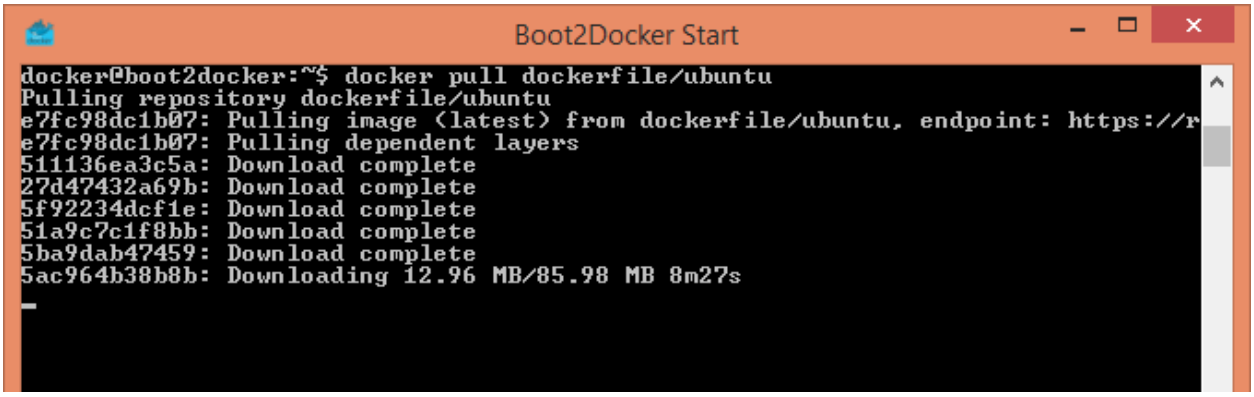
2. You will see “login Succeeded” message after successful login.



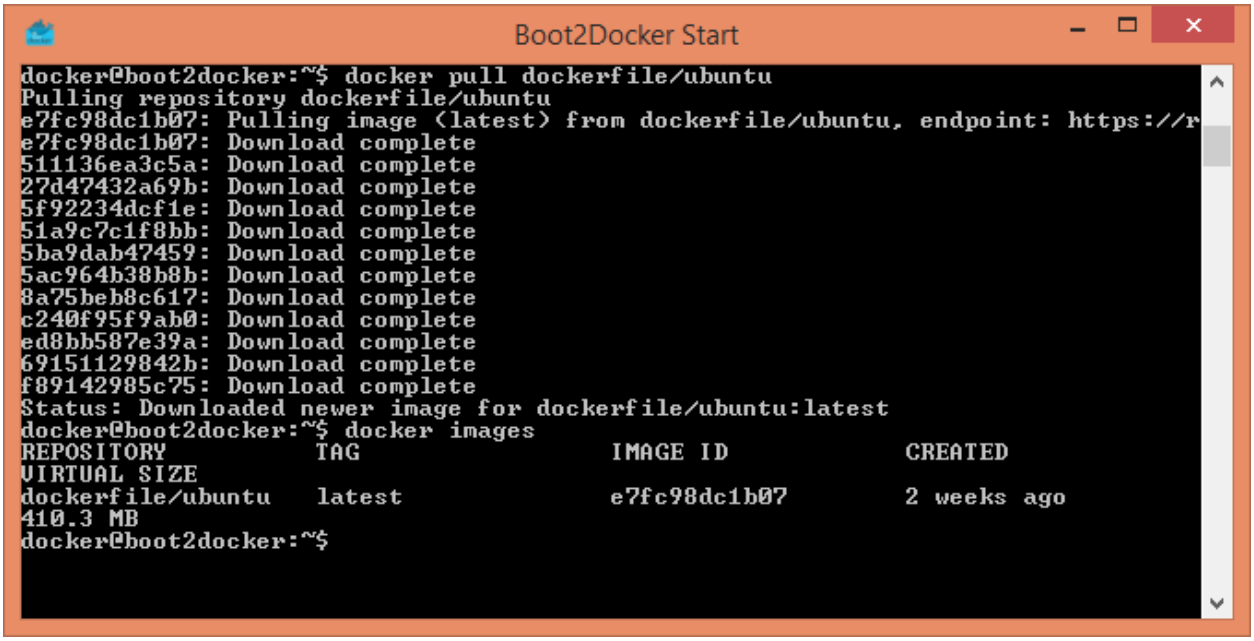
3. Now pull latest Ubuntu image from docker hub.



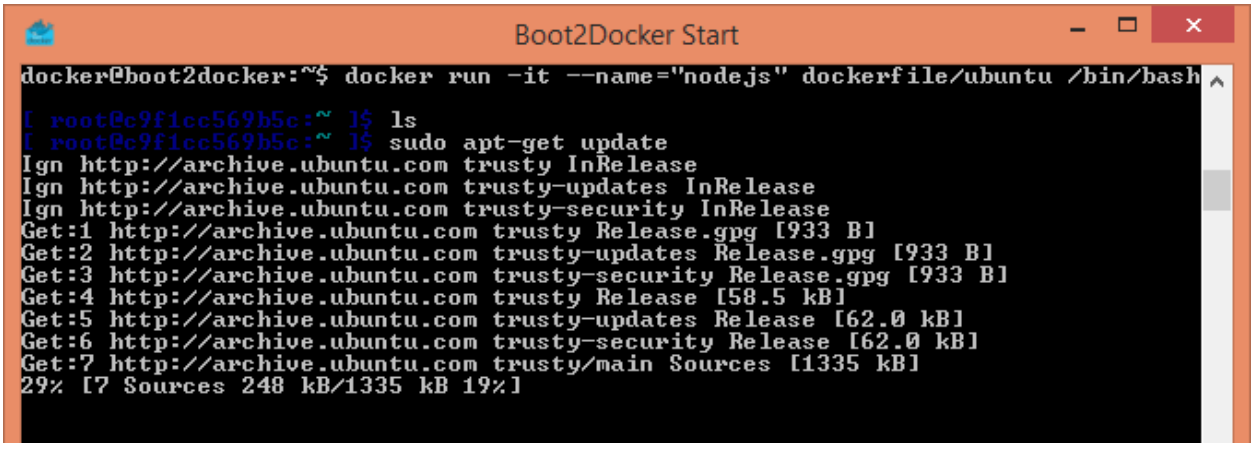
4. Images will get downloaded in layers.



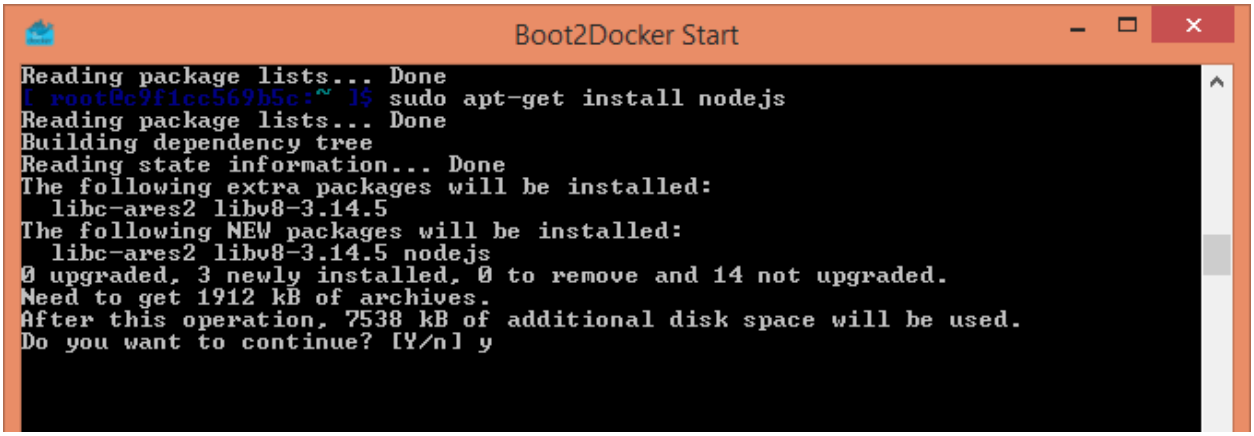
5. Once image gets downloaded run docker images command to see list of images present.



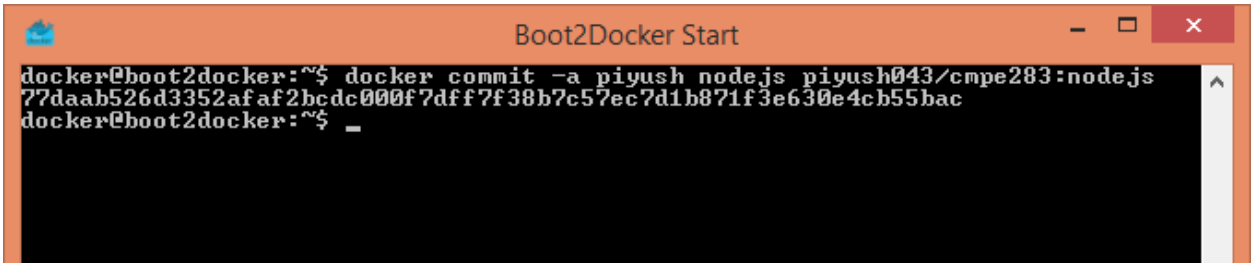
6. Now run that image into a container using below command and once you are into your container run sudo apt-get update.



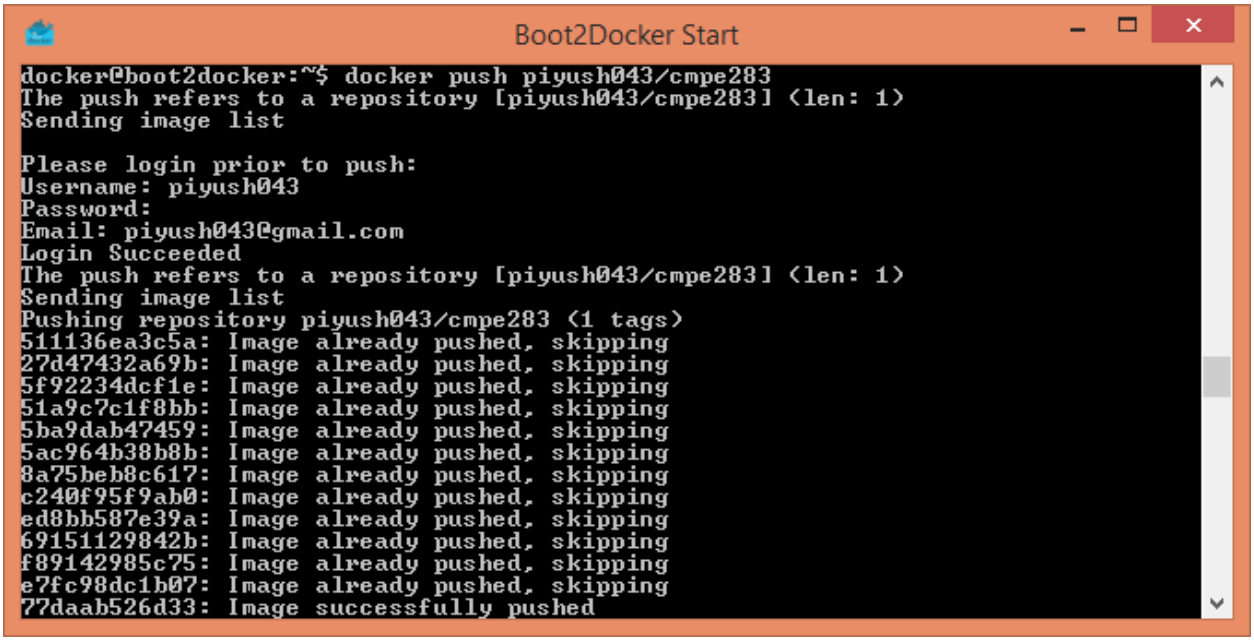
7. Now install nodejs in that container.



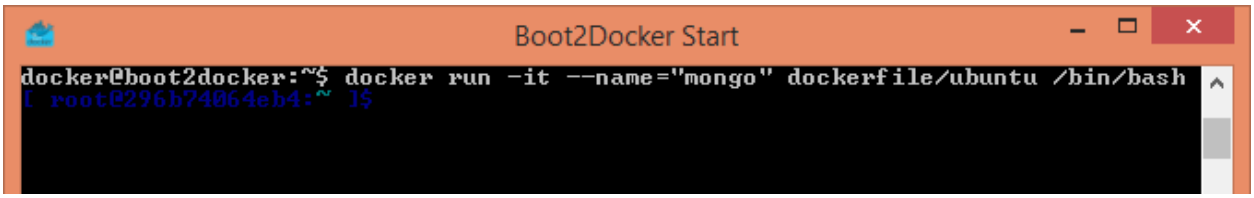
8. Once nodejs installation gets completed, exit from container and then commit it.

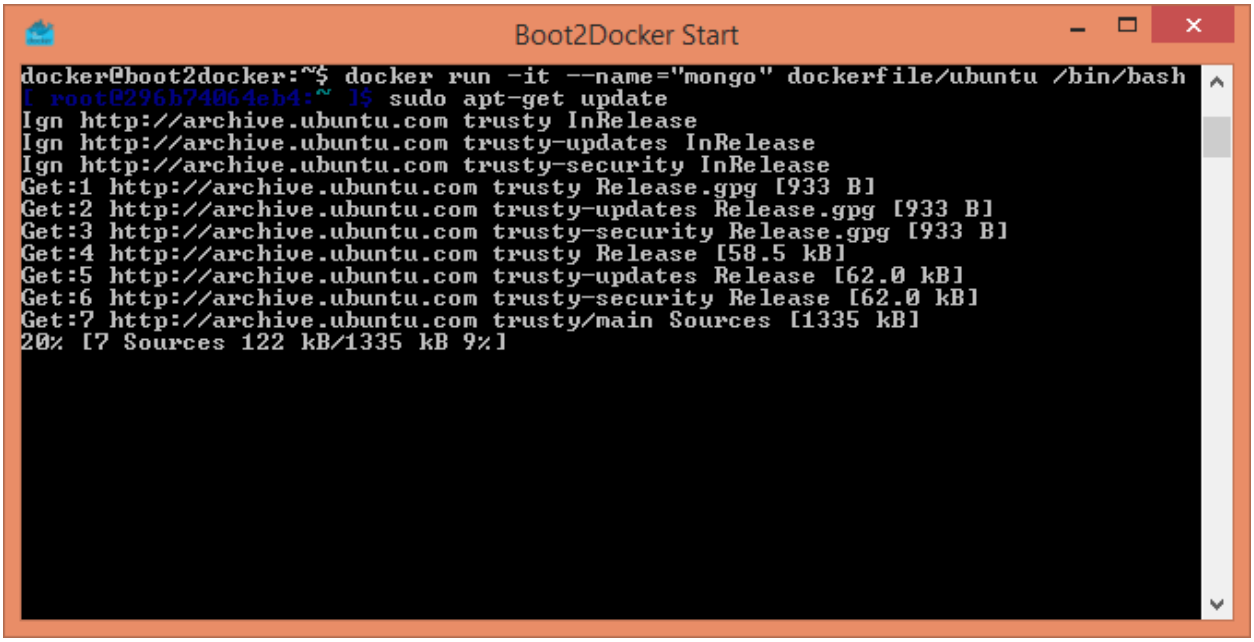


9. Push that container to repository

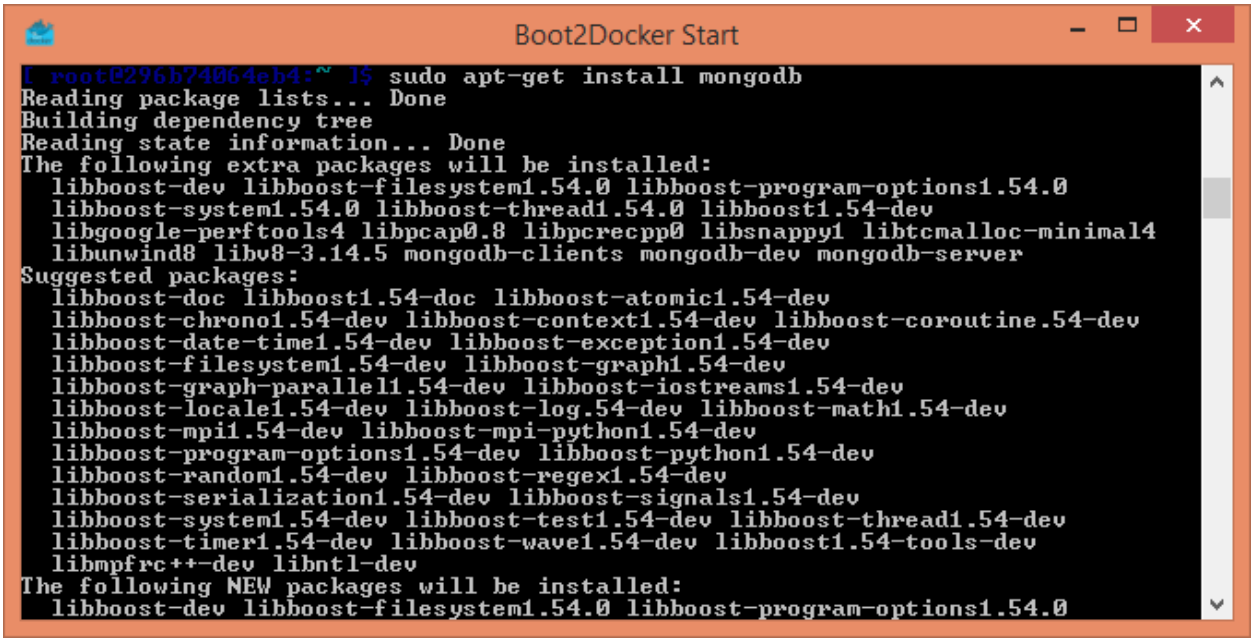


10. Create another container for mongodB and update it

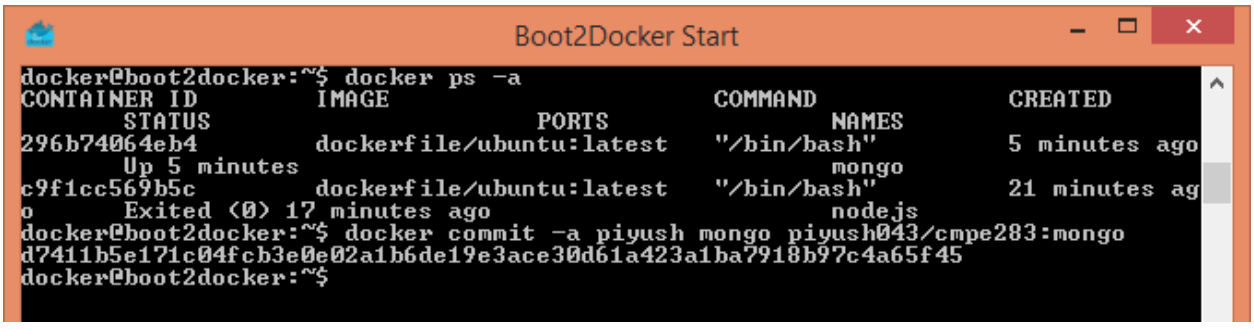




11. Install mongodb in that container.

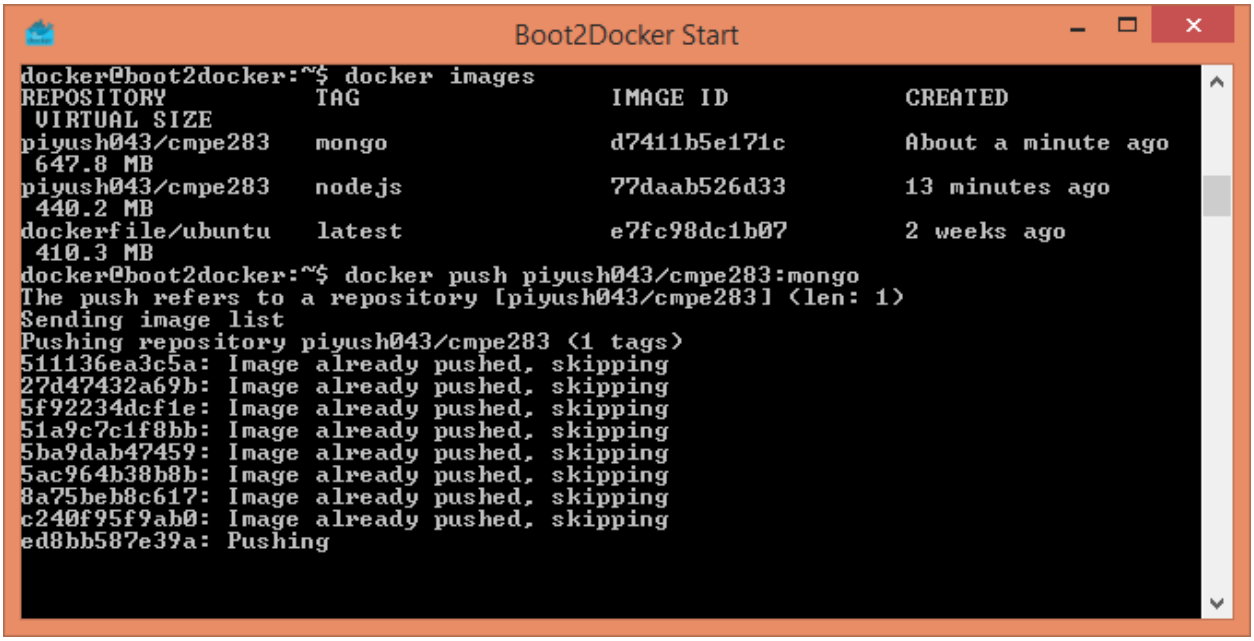


12. Close that container and commit it.

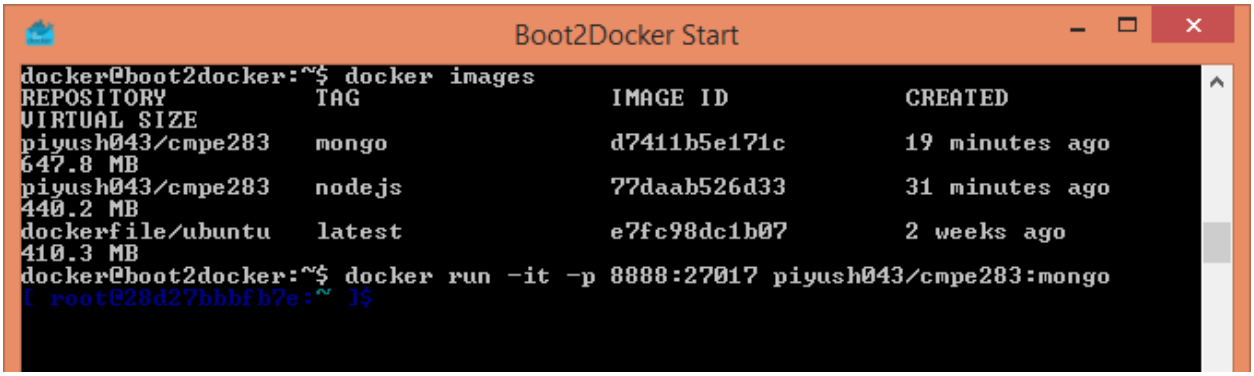


13. Run docker images command to view list of images.

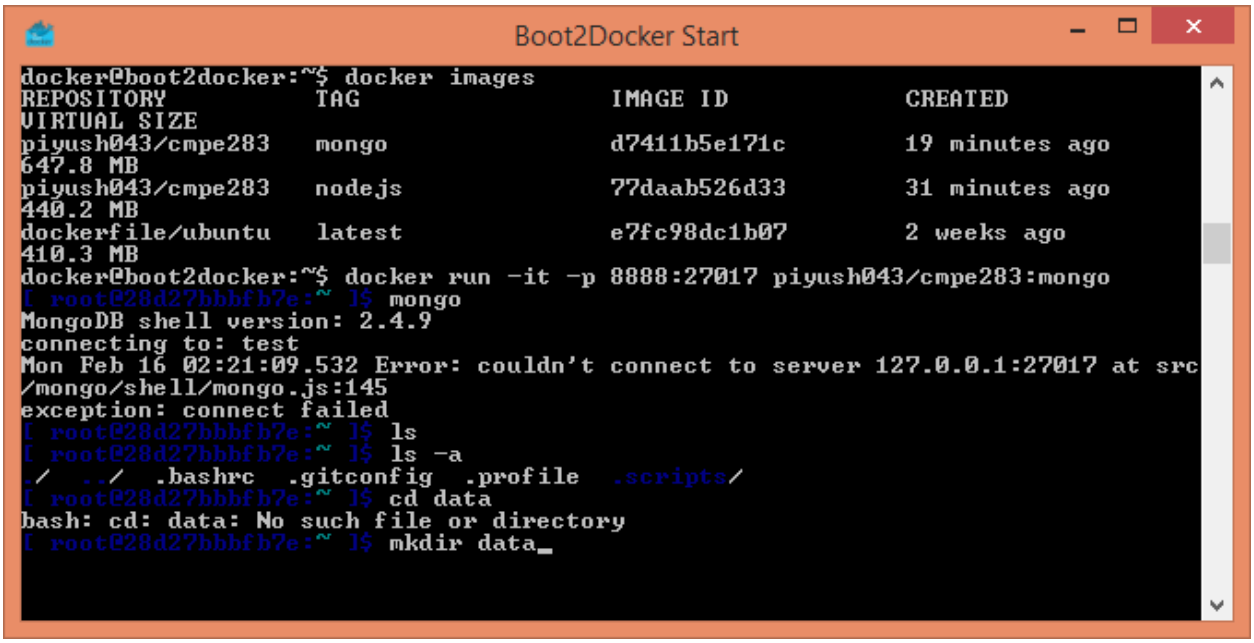
14. Push that image to docker hub repository.

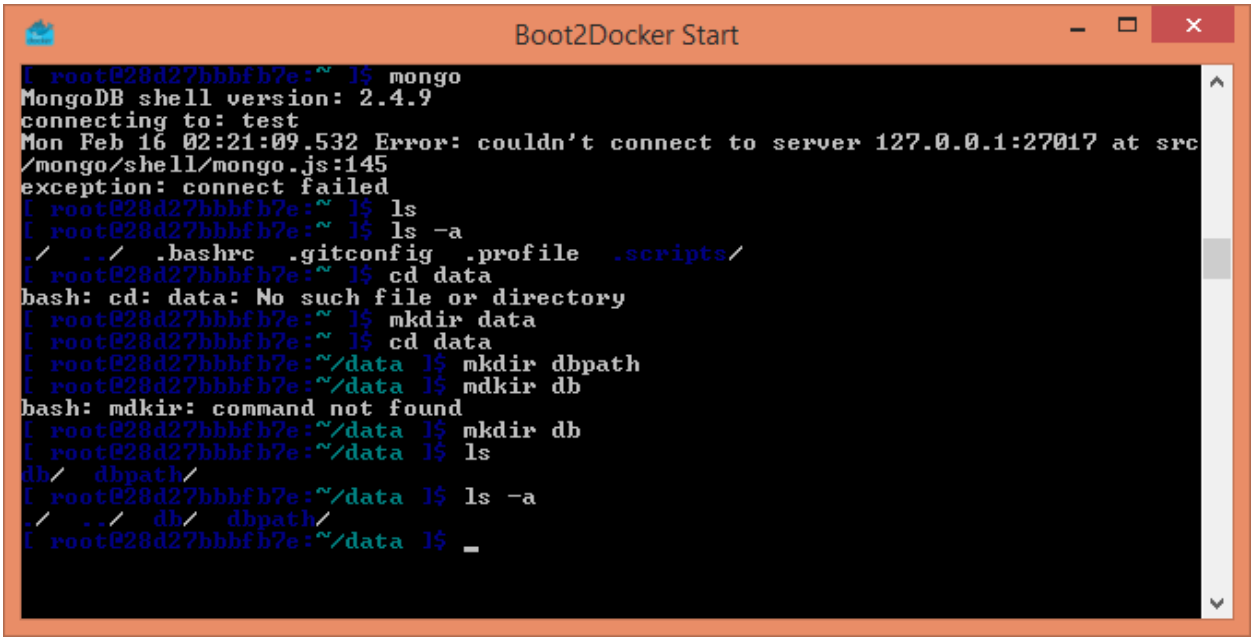


15. Now run mongodb container and open its port for external entry. Here I am opening 8888 port.

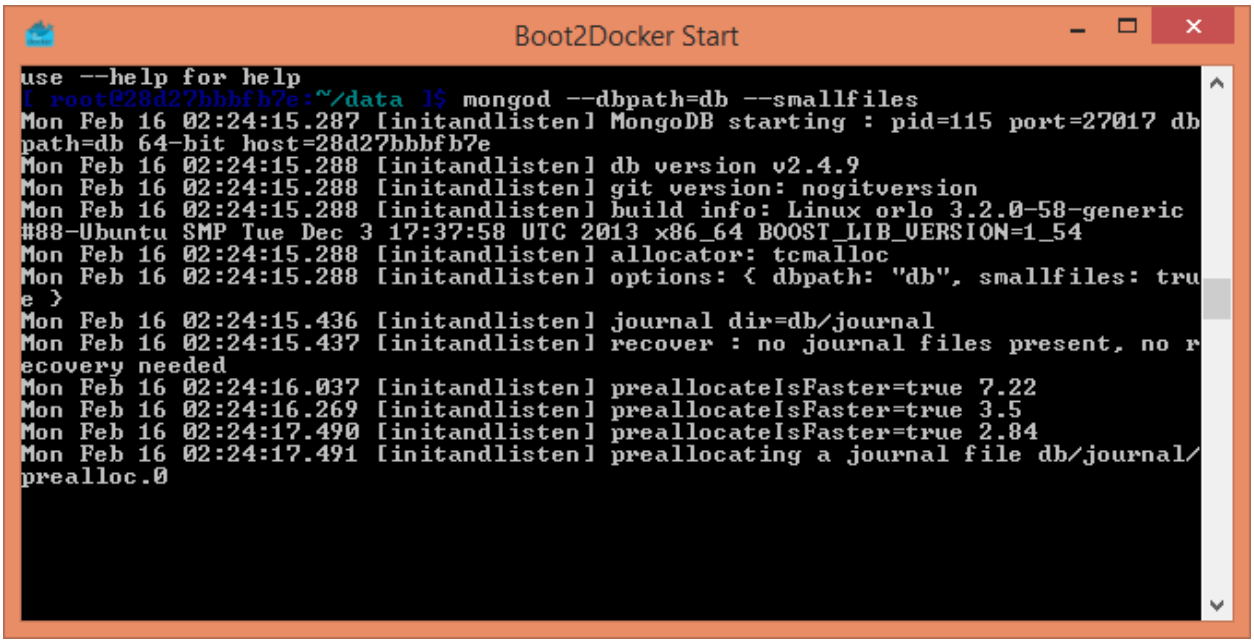


16. Create a data directory in mongodb container. In this directory database will be stored.

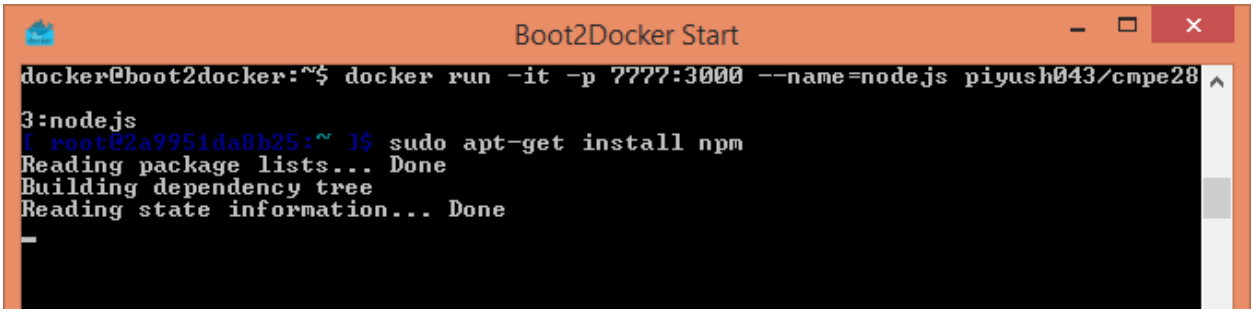




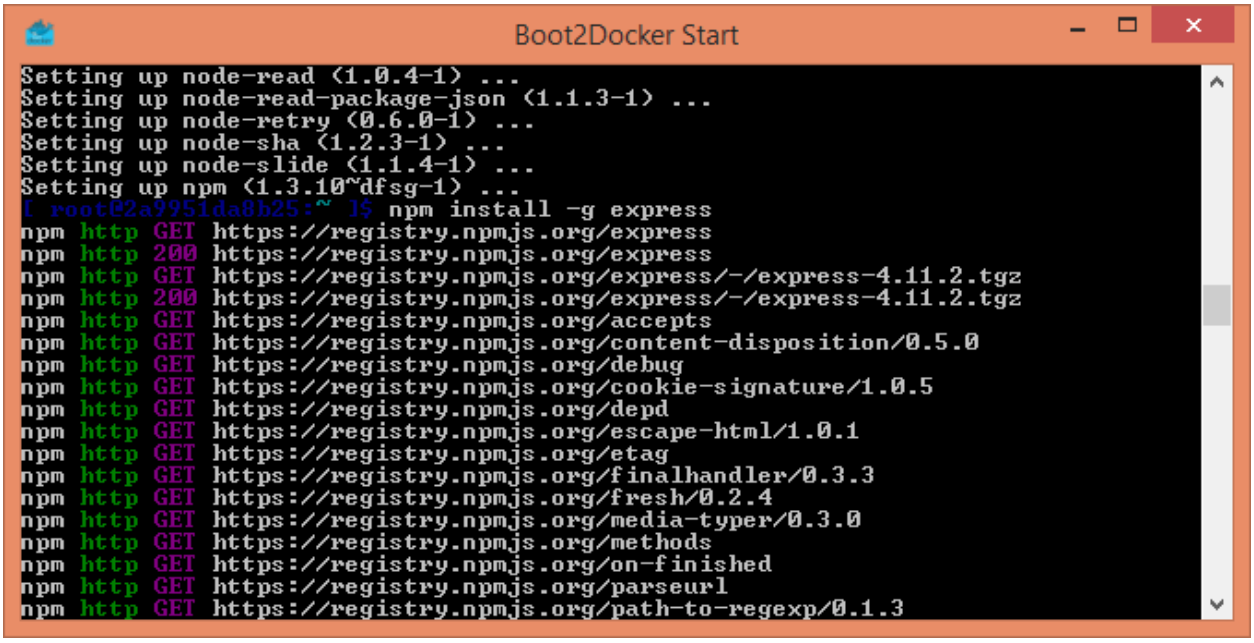
17. Now start the mongodb server using mongod –dbpath=”data” –smallfiles command.

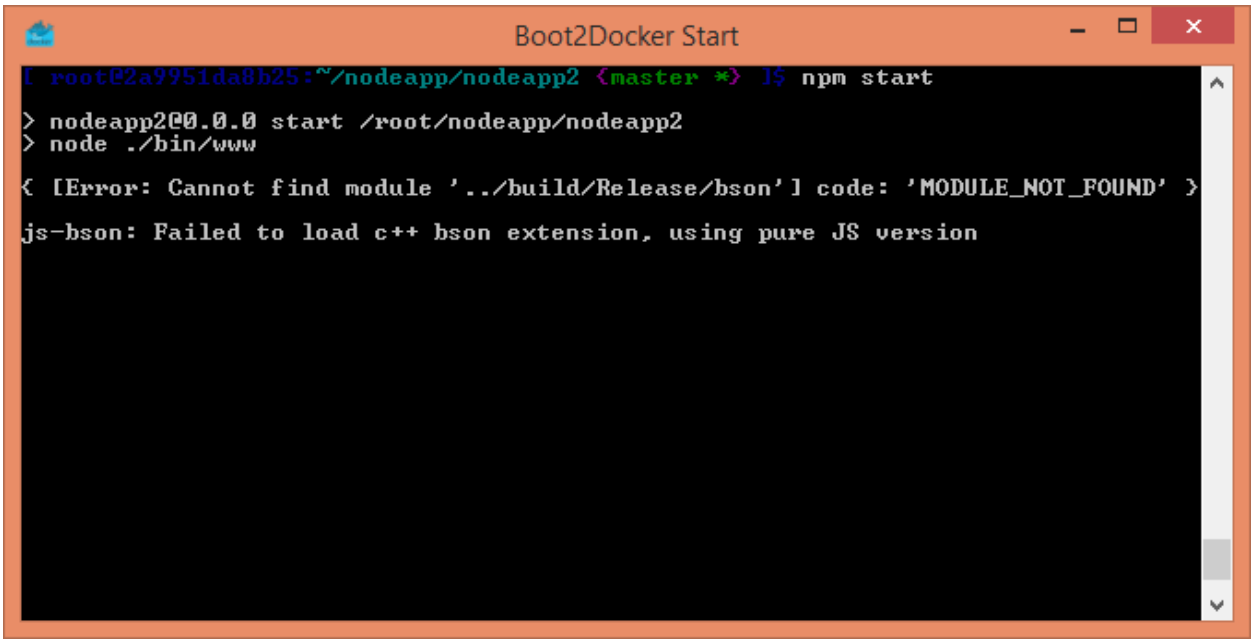


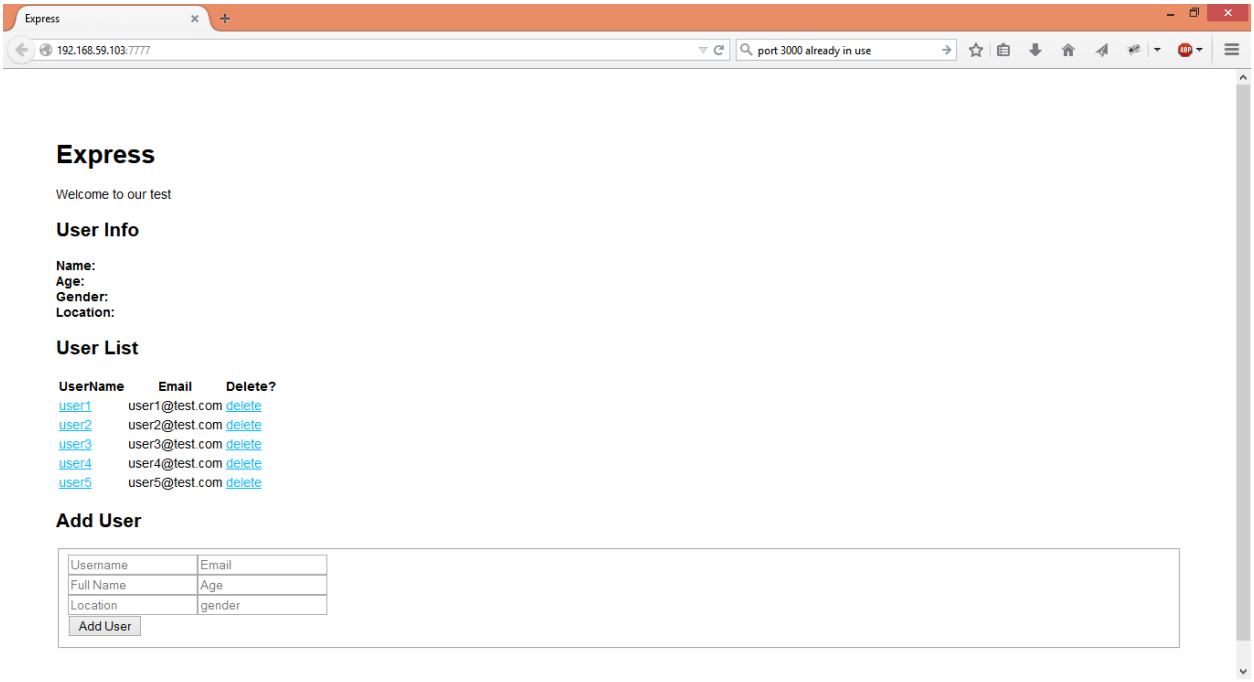
18. Now run nodejs container and open its port for external entry. Here I am opening 7777 port.

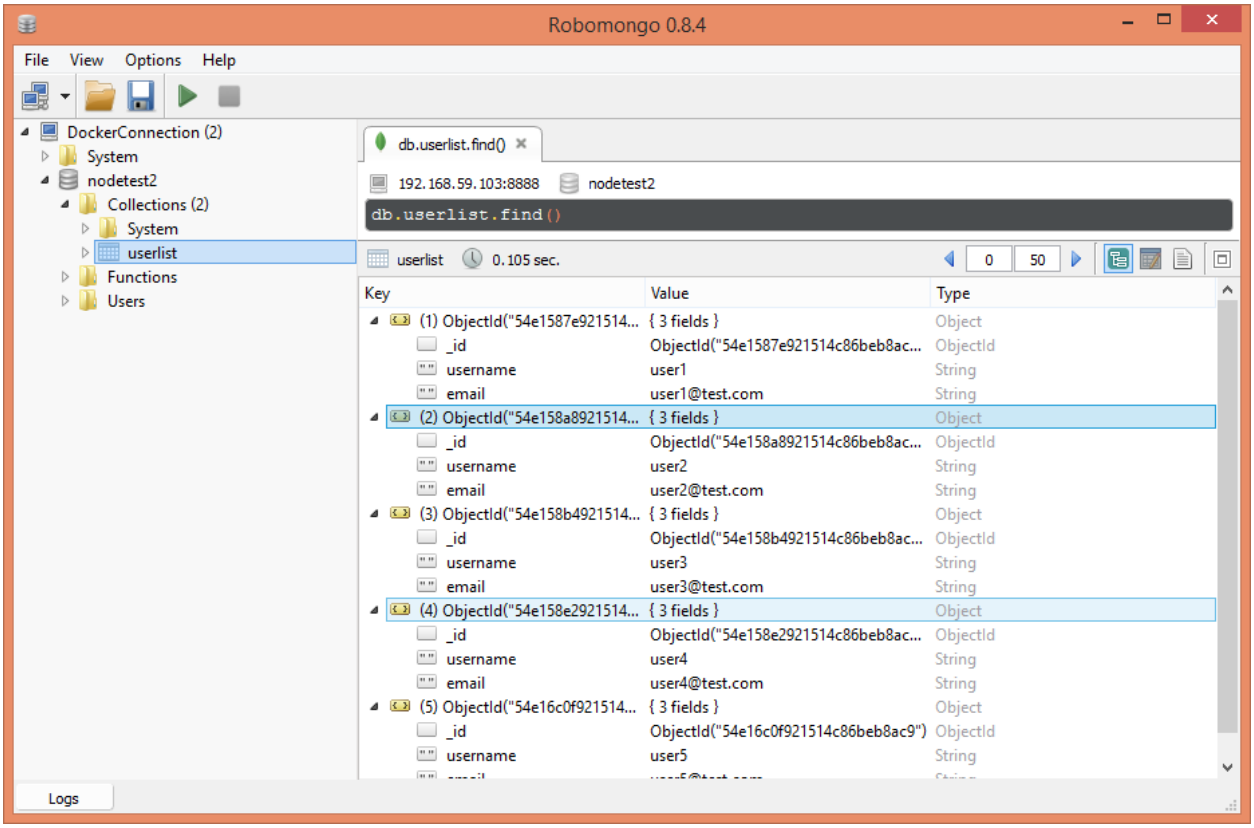


19. Install npm and start




Boot2Docker Start
[root@2a9951da8b25:~/nodeapp/nodeapp2 (master *)]$ npm start
> nodeapp2@0.0.0 start /root/nodeapp/nodeapp2
> node ./bin/www
{ [Error: Cannot find module '../build/Release/bson'] code: 'MODULE_NOT_FOUND' }
js-bson: Failed to load c++ bson extension, using pure JS version


Express
192.168.59.103:7777
port 3000 already in use
Express
Welcome to our test
User Info
Name:
Age:
Gender:
Location:
User List
UserName Email Delete?
user1 user1@test.com delete
user2 user2@test.com delete
user3 user3@test.com delete
user4 user4@test.com delete
user5 user5@test.com delete
Add User
Username
Email
Full Name
Age
Location
gender
Add User


Robomongo 0.8.4
File
View
Options
Help
DockerConnection (2)
System
nodetest2
Collections (2)
System
userlist
Functions
Users
db.userlist.find()
192.168.59.103:8888
nodetest2
db.userlist.find()
userlist
0.105 sec.
0
50
Key
Value
Type
(1) ObjectId("54e1587e921514... { 3 fields } Object
_id ObjectId("54e1587e921514c86beb8ac... ObjectId
username user1 String
email user1@test.com String
(2) ObjectId("54e158a8921514... { 3 fields } Object
_id ObjectId("54e158a8921514c86beb8ac... ObjectId
username user2 String
email user2@test.com String
(3) ObjectId("54e158b4921514... { 3 fields } Object
_id ObjectId("54e158b4921514c86beb8ac... ObjectId
username user3 String
email user3@test.com String
(4) ObjectId("54e158e2921514... { 3 fields } Object
_id ObjectId("54e158e2921514c86beb8ac... ObjectId
username user4 String
email user4@test.com String
(5) ObjectId("54e16c0f921514... { 3 fields } Object
_id ObjectId("54e16c0f921514c86beb8ac9") ObjectId
username user5 String
Logs