



Chapter 1: Authentication

Homework 1.3: Enabling Internal Authentication using X.509

Problem:

In this lab you are going to start your own replica set with internal authentication enabled using X.509 certificates.

We have provided you with the necessary certificates via the handout.

Your task is to create a three member replica set that uses X.509 certificates for internal authentication. Below are the settings you should use for your replica set. **Failure to comply with these parameters will result in incorrect results.**

Type	Primary	Secondary	Secondary
Port	31130	31131	31132
DBPath	~/M310-HW-1.3/r0	~/M310-HW-1.3/r1	~/M310-HW-1.3/r2
LogPath	~/M310-HW-1.3/r0/mongodb.log	~/M310-HW-1.3/r1/mongodb.log	~/M310-HW-1.3/r2/mongodb.log

Make sure to copy the `certs` folder directly to the `m310-vagrant-env/shared` folder. **If the certificates are not in this location then your results will be incorrect.** When SSHed into the VM your home file structure should look similar to this:

COPY

```
~
|-- shared
|   |-- certs
|   |   |-- ca.pem
|   |   |-- client.pem
|   |   |-- server.pem
|   |-- validate-hw-1.3.sh
```

After you have setup your replica set with internal authentication using X.509 certificates, create a user on the **admin** database with the **root** role for the **client.pem** certificate.

After creating your user run the following script and copy the output into the submission area below.

When you set up your replica set make sure that you use the fully qualified domain name (FQDN) when initiating the replica set. Failing to do so will prevent the validation script from working properly. All of the homework should be completed with Vagrant, so the FQDN will be **database.m310.mongodb.university**.

 COPY

```
$ cd ~/shared
$ ./validate-hw-1.3.sh
```

Note: If you've successfully enabled authentication on the replica set, then the validation script should output a JSON object with two keys: **unauthorizedStatus** and **memberStatuses**. The first key confirms that authentication is enabled, and the second verifies that all members are still up and running.

Attempts Remaining: **Correct Answer**   

Enter answer here:

```
{ unauthorizedStatus: { "ok" : 0, "errmsg" : "not authorized on
admin to execute command { replSetGetStatus: 1.0 }", "code" : 13 },
memberStatuses: ["PRIMARY","SECONDARY","SECONDARY"] }
```

Correct!

[See detailed answer](#)

[Proceed to next section](#)

Assignment is Due

12d:02hr:51m

Dec 17, 17:00 UTC

Your Grade

PASS/FAIL

Submitted