Chapter 1: Authentication

Homework 1.5: Enabling Mixed Authentication Mechanisms

Problem:

In this lab you're going to start your own replica set with a mix of SCRAM-SHA-1, X.509, and keyfile based authentication enabled.

We've provided you with the necessary certificates via the handout.

Your task is to create a three member replica set that uses X.509 certificates and SCRAM-SHA-1 for client authentication. You'll then use keyfile authentication 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	31150	31151	31152
DBPath	~/M310-HW-1.5/r0	~/M310-HW-1.5/r1	~/M310-HW-1.5/r2
LogPath	~/M310-HW-1.5/r0/mongodb.log	~/M310-HW-1.5/r1/mongodb.log	~/M310-HW-1.5/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 **database** VM your home file structure should look similar to this:

```
~
`-- shared
    |-- certs
    |   |-- ca.pem
    |   |-- client.pem
    |   `-- server.pem
    `-- validate-hw-1.5.sh
```

After you have set up your replica set with all the mechanisms enabled then create a SCRAM-SHA-1 user named **will** with a password of **$uperAdmin** with the `root` role on the `admin` database.

After creating an account for Will then create another account for the `client.pem` certificate. Give this user the `userAdminAnyDatabase` role on the `admin` database.

After creating both users run the following validation script and copy the output into the submission area below.

COPY

```
$ cd ~/shared
$ ./validate-hw-1.5.sh
```

Note: If you've successfully enabled authentication on the replica set, then the validation script should output a JSON object with three keys: `unauthorizedStatus`, `memberStatuses`, and `users`. The first key confirms that authentication is enabled, the second verifies that all members are still up and running, and the last one validates the users you were supposed to create.

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"], users:
[{"_id":"admin.will","roles":[{"role":"root","db":"admin"}]},
{"_id":"$external.C=US,ST=New York,L=New York
City,O=MongoDB,OU=University2,CN=M310 Client","roles":
```

Correct!

See detailed answer

Proceed to next section

Assignment is Due

12d:02hr:40m
Dec 17, 17:00 UTC

Your Grade

PASS/FAIL
Submitted