Chapter 1: Authentication

Homework 1.2 : Enabling Authentication on a Running Replica Set

Back to the Question

This lab is a great real world example of an important administrative task that a DBA might need to perform. Often during development, a replica set is set up without any authentication enabled. Later the system is deploy to production in the same fashion, no authentication enabled. Down the road a DBA might realize that this production environment is running without any authentication and will need to enable authentication on a running replica set.

The key to success with this homework is to realize that internal authentication on a replica set enables client authentication automatically. Here are the commands needed to successfully enable authentication on a running replica set referencing the steps outlined in the instructions.

- Create a keyfile to use for internal authentication between the members of the replica set.

```
$ cd ~/M310-HW-1.2
$ openssl rand -base64 755 > shared_key
$ chmod 400 shared_key
```

- Safely shutdown each member of the replica set, starting with the secondaries to prevent any rollbacks.

```
$ mongo admin --port 31121 --quiet --eval
"db.shutdownServer()"
$ mongo admin --port 31122 --quiet --eval
"db.shutdownServer()"
$ mongo admin --port 31120 --quiet --eval
"db.shutdownServer({force: true})"
```

- Starting with the primary, restart each member using the shared keyfile you generated.

```
$ mongod --dbpath r0 --logpath r0/mongodb.log --port 31120 --
replSet TO_BE_SECURED --keyFile shared_key --fork
$ mongod --dbpath r1 --logpath r1/mongodb.log --port 31121 --
replSet TO_BE_SECURED --keyFile shared_key --fork
$ mongod --dbpath r2 --logpath r2/mongodb.log --port 31122 --
replSet TO_BE_SECURED --keyFile shared_key --fork
```

- Finally, create a user with the `root` role with the username **admin** and the password **webscale** on the `admin` database.

```
$ mongo --port 31120
use admin
db.createUser({user: 'admin', pwd: 'webscale', roles:
['root']})
```

Note: These commands might different in order slightly depending on which member gets elected primary. This example assumed the member on port 31120 was the primary.

Proceed to next section