

ReplicaSet - Elections

1. Login into primary

```
[tom@localhost ~]$ mongo --port 27017
```

```
MongoDB shell version: 2.6.3  
connecting to: 127.0.0.1:27017/test  
myreplicaset:PRIMARY>
```

2. Store configuration to a variable "config"

```
myreplicaset:PRIMARY> config=rs.conf();
```

```
{  
  "_id" : "myreplicaset",  
  "version" : 3,  
  "members" : [  
    {  
      "_id" : 0,  
      "host" : "localhost.localdomain:27017"  
    },  
    {  
      "_id" : 1,  
      "host" : "localhost.localdomain:27018"  
    },  
    {  
      "_id" : 2,  
      "host" : "localhost.localdomain:27019"  
    }  
  ]  
}
```

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3. Update priority of members

```
myreplicaset:PRIMARY> config.members[0].priority=3
```

```
3
```

```
myreplicaset:PRIMARY> config.members[1].priority=1
```

```
1
```

```
myreplicaset:PRIMARY> config.members[2].priority=2
```

```
2
```

4. Reconfigure ReplicaSet with new configurations

```
myreplicaset:PRIMARY> rs.reconfig(config)
```

```
2014-07-08T15:08:24.009+0200 DBClientCursor::init call() failed
2014-07-08T15:08:24.012+0200 trying reconnect to 127.0.0.1:27017
(127.0.0.1) failed
2014-07-08T15:08:24.013+0200 reconnect 127.0.0.1:27017 (127.0.0.1) ok
reconnected to server after rs command (which is normal)
```

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5. View ReplicaSet configuration

```
myreplicaset:PRIMARY> rs.conf();
```

```
{
  "_id" : "myreplicaset",
  "version" : 4,
  "members" : [
    {
      "_id" : 0,
      "host" : "localhost.localdomain:27017",
      "priority" : 3
    },
    {
      "_id" : 1,
      "host" : "localhost.localdomain:27018"
    },
    {
      "_id" : 2,
      "host" : "localhost.localdomain:27019",
      "priority" : 2
    }
  ]
}
```

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6. Check status of the ReplicaSet

```
myreplicaset:PRIMARY> rs.status();
```

```
{
  "set" : "myreplicaset",
  "date" : ISODate("2014-07-08T13:09:19Z"),
  "myState" : 1,
  "members" : [
    {
      "_id" : 0,
      "name" : "localhost.localdomain:27017",
      "health" : 1,
      "state" : 1,
      "stateStr" : "PRIMARY",
      "uptime" : 1134,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "electionTime" : Timestamp(1404824025, 1),
      "electionDate" : ISODate("2014-07-08T12:53:45Z"),
      "self" : true
    },
    {
      "_id" : 1,
      "name" : "localhost.localdomain:27018",
      "health" : 1,
      "state" : 2,
      "stateStr" : "SECONDARY",
      "uptime" : 56,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:09:17Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:09:18Z"),
      "pingMs" : 0,
      "lastHeartbeatMessage" : "syncing to:
localhost.localdomain:27017",
      "syncingTo" : "localhost.localdomain:27017"
    },
    {
      "_id" : 2,
      "name" : "localhost.localdomain:27019",
      "health" : 1,
      "state" : 2,
      "stateStr" : "SECONDARY",
      "uptime" : 56,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:09:17Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:09:19Z"),
      "pingMs" : 0,
      "lastHeartbeatMessage" : "syncing to:
localhost.localdomain:27017",
      "syncingTo" : "localhost.localdomain:27017"
    }
  ],
  "ok" : 1
}
```

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7. Exit from the primary

```
myreplicaset:PRIMARY> exit
bye
```

8. Stop the current master process

```
[tom@localhost ~]$ sudo su
[sudo] password for tom:
[root@localhost tom]# cd /var/lib/mongo
[root@localhost mongo]# ps -ef|grep mongo
```

```
root      2984      1  0 14:50 ?          00:00:03 mongod --port 27017 -
dbpath /var/lib/mongo/replicaset0 --logpath
/var/lib/mongo/replicaset0/log --replSet myreplicaset --fork --
smallfiles --nojournal
root      3036      1  0 14:51 ?          00:00:02 mongod --port 27018 -
dbpath /var/lib/mongo/replicaset1 --logpath
/var/lib/mongo/replicaset1/log --replSet myreplicaset --fork --
smallfiles --nojournal
root      3082      1  0 14:51 ?          00:00:02 mongod --port 27019 -
dbpath /var/lib/mongo/replicaset2 --logpath
/var/lib/mongo/replicaset2/log --replSet myreplicaset --fork --
smallfiles --nojournal
root      3699  3682  0 15:11 pts/2    00:00:00 grep mongo
```

```
[root@localhost mongo]# kill -9 2984
```

9. Login into mongo with priority 2

```
[root@localhost mongo]# mongo --port 27019
```

```
MongoDB shell version: 2.6.3
connecting to: 127.0.0.1:27019/test
myreplicaset:PRIMARY>
```

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10. Check configuration

```
myreplicaset:PRIMARY> rs.conf();
```

```
{
  "_id" : "myreplicaset",
  "version" : 4,
  "members" : [
    {
      "_id" : 0,
      "host" : "localhost.localdomain:27017",
      "priority" : 3
    },
    {
      "_id" : 1,
      "host" : "localhost.localdomain:27018"
    },
    {
      "_id" : 2,
      "host" : "localhost.localdomain:27019",
      "priority" : 2
    }
  ]
}
```

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11. Check ReplicaSet status

```
myreplicaset:PRIMARY> rs.status();
```

```
{
  "set" : "myreplicaset",
  "date" : ISODate("2014-07-08T13:13:37Z"),
  "myState" : 1,
  "members" : [
    {
      "_id" : 0,
      "name" : "localhost.localdomain:27017",
      "health" : 0,
      "state" : 8,
      "stateStr" : "(not reachable/healthy)",
      "uptime" : 0,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:13:35Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:12:12Z"),
      "pingMs" : 0
    },
    {
      "_id" : 1,
      "name" : "localhost.localdomain:27018",
      "health" : 1,
      "state" : 2,
      "stateStr" : "SECONDARY",
      "uptime" : 312,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:13:35Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:13:36Z"),
      "pingMs" : 0,
      "lastHeartbeatMessage" : "syncing to:
localhost.localdomain:27019",
      "syncingTo" : "localhost.localdomain:27019"
    },
    {
      "_id" : 2,
      "name" : "localhost.localdomain:27019",
      "health" : 1,
      "state" : 1,
      "stateStr" : "PRIMARY",
      "uptime" : 1325,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "electionTime" : Timestamp(1404825141, 1),
      "electionDate" : ISODate("2014-07-08T13:12:21Z"),
      "self" : true
    }
  ],
  "ok" : 1
}
```

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12. Exit from the current primary

```
myreplicaset:PRIMARY> exit
bye
```

13. Restart the killed process

```
[root@localhost mongo]# rm replicaset0/mongod.lock
```

```
rm: remove regular file `replicaset0/mongod.lock'? yes
```

```
[root@localhost mongo]# mongod --port 27017 --dbpath
/var/lib/mongo/replicaset0 --logpath /var/lib/mongo/replicaset0/log --
replSet myreplicaset --fork --smallfiles --nojournal
```

```
about to fork child process, waiting until server is ready for
connections.
```

```
forked process: 5293
```

```
child process started successfully, parent exiting
```

14. Login into the restarted process

```
[root@localhost mongo]# mongo --port 27017
```

```
MongoDB shell version: 2.6.3
connecting to: 127.0.0.1:27017/test
```


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15. Check ReplicaSet configuration

```
myreplicaset:PRIMARY> rs.conf();
```

```
{
  "_id" : "myreplicaset",
  "version" : 4,
  "members" : [
    {
      "_id" : 0,
      "host" : "localhost.localdomain:27017",
      "priority" : 3
    },
    {
      "_id" : 1,
      "host" : "localhost.localdomain:27018"
    },
    {
      "_id" : 2,
      "host" : "localhost.localdomain:27019",
      "priority" : 2
    }
  ]
}
```

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16. Check ReplicaSet status

```
myreplicaset:PRIMARY> rs.status();
```

```
{
  "set" : "myreplicaset",
  "date" : ISODate("2014-07-08T13:17:33Z"),
  "myState" : 1,
  "members" : [
    {
      "_id" : 0,
      "name" : "localhost.localdomain:27017",
      "health" : 1,
      "state" : 1,
      "stateStr" : "PRIMARY",
      "uptime" : 39,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "electionTime" : Timestamp(1404825417, 1),
      "electionDate" : ISODate("2014-07-08T13:16:57Z"),
      "self" : true
    },
    {
      "_id" : 1,
      "name" : "localhost.localdomain:27018",
      "health" : 1,
      "state" : 2,
      "stateStr" : "SECONDARY",
      "uptime" : 38,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:17:33Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:17:33Z"),
      "pingMs" : 0,
      "lastHeartbeatMessage" : "syncing to:
localhost.localdomain:27019",
      "syncingTo" : "localhost.localdomain:27019"
    },
    {
      "_id" : 2,
      "name" : "localhost.localdomain:27019",
      "health" : 1,
      "state" : 2,
      "stateStr" : "SECONDARY",
      "uptime" : 38,
      "optime" : Timestamp(1404824903, 1),
      "optimeDate" : ISODate("2014-07-08T13:08:23Z"),
      "lastHeartbeat" : ISODate("2014-07-08T13:17:33Z"),
      "lastHeartbeatRecv" : ISODate("2014-07-08T13:17:32Z"),
      "pingMs" : 0,
      "lastHeartbeatMessage" : "syncing to:
localhost.localdomain:27017",
      "syncingTo" : "localhost.localdomain:27017"
    }
  ],
  "ok" : 1
}
```

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17. Exit from the primary.

```
myreplicaset:PRIMARY> exit  
bye
```