**Day 1:**

* Setting up server :
  + Append D:\MongoDB 2.6 Standard\bin; to PATH variable.
  + D:\MongoDB 2.6 Standard\bin>dir /b
* Starting server with default data location
  + D:\MongoDB 2.6 Standard\bin>md \data\db(default location which mongodb uses for storing data)
  + D:\MongoDB 2.6 Standard\bin>mongod( will start the server)
  + mongod –help|more
* Starting server with configuration file(User defined location for Data Directory ,Logging verbosity,Log file etc)
  + Create below directories
    - D:\mymongodata\db
    - D:\mymongodatalog
  + Step 1: Create .conf file

|  |  |
| --- | --- |
| Create file **mongod.conf** with below values | #where datafiles will reside  dbpath=D:\mymongodata\db    #where logfiles will reside    logpath=D:\mymongodatalog\mongo-server.log    #how verbose the server will be logging    verbose=vvvvv |

* + Step 2: Start server with .conf file
    - mongod -f D:\mongoconf\mongod.conf
  + Open another command prompt and cerate sample document in test database
* Installing MongoDB as windows service
  + Open command prompt as “administrator”
  + mongod -f D:\mongoconf\mongod.conf – install
  + net start mongodb
  + net stop mongod
  + use mongo command to verify server
  + show dbs
  + use citi

**Replication demo:**

* Step 1: Create three servers on one Machine having different port.
  + **A**--Primary DB,**B**---Secondory DB, **C**---Arbiter DB
  + Create three directories
    - md D:\replicatset\db1
    - md D:\replicatset\db2
    - md D:\replicatset\db3
* Step 2: Create file **ReplicatSet.bat** and add below content :

@REM Primary

start "a" mongod --dbpath D:\replicatset\db1 --port 30000 -replSet demo --smallfiles --oplogSize 128

@REM Secondary

start "b" mongod --dbpath D:\replicatset\db2 --port 40000 -replSet demo --smallfiles --oplogSize 128

@REM Arbiter

start "c" mongod --dbpath D:\replicatset\db3 --port 50000 -replSet demo --smallfiles --oplogSize 128

* Save file to D:\MongoDB 2.6 Standard\bin>
* Run command from MogoDB bin>>**D:\MongoDB 2.6** **Standard\bin>ReplicatSet.bat**
* Step 3 : **Connect to Primary member of Replicaset>>** Open Another command prompt as administrator
  + Execute **D:\MongoDB 2.6 Standard\bin>mongo -port 30000**
  + Check by executing **db.getMongo()**
* Step 4: **Creating JSON based configuration for Replicatset:**

var demoConfig={**\_id**:"demo", members:[{**\_id**:0,**host**: 'localhost: 30000',**priority**:10},{**\_id**:1,**host**:'localhost:40000'},{**\_id**:2 , **host**: 'localhost:50000',**arbiterOnly**:true}]};

* + Execute >> **rs.initiate(demoConfig)**
    - Prompt will change to >> **demo:OTHER>**
    - Press enter u will get >>**demo:PRIMARY>**
* Step 5: Writing to Primary :
  + **demo:PRIMARY>**db.foo.save({\_id:1,value:'hello world'})
  + check by executing >> **demo:PRIMARY>db.foo.find()**
  + End connection to Primary-30000 by caling command >>**exit**
* Step 6: **Connect to Secondary** 
  + D:\MongoDB 2.6 Standard\bin>**mongo --port 40000**
  + prompt will change to >>**demo:SECONDARY>**
  + Fetching data by executing >> **db.foo.find() . It will give something** error: { "$err" : "not master and slaveOk=false", "code" : 13435 }. It means I will not allow to read from Secondary unless its set OK
  + Execute >> **db.setSlaveOk()**
  + Now Execute >> **db.foo.find()** . (This shows that the document that we wrote in primary fetched from secondary.)
* Step 7: Understanding Failover
  + Kill primary..i.e .."a"
  + After killing primary execute from secondary: demo:SECONDARY>**db.foo.find()**

You will also notice that after few seconds Secondary has become primary and the prompt will automatically change to **demo:PRIMARY>**

* + Execute **db.getMongo() …** it shows still u r connected to "b" at port 40000 but now it have become primary
  + From Same client Pesss Ctrl+C and get disconnected from **"b"** which is now primary and start one server again **"a"** at **port 30000….**
    - start "a" mongod --dbpath D:\replicatset\db1 --port 30000 -replSet demo --smallfiles --oplogSize 128
  + Connect to again at port 40000:
    - D:\MongoDB 2.6 Standard\bin>mongo --port 40000
    - You will notice that it has again became Secondary after "a" got started
  + Cheking the status of ReplSet
    - Rs.status()
    - Exexute :demo:SECONDARY> rs.status(); you will get status of ReplicaSet