* Ifconfig : To check network configuration
* pico /etc/network/interfaces: To change “”

Changes:

auto lo

iface lo inet loopback

auto enp0s3

iface enp0s3 inet dhcp

auto enp0s8

iface enp0s8 inet static

address 192.168.100.100

netmask 255.255.255.0

network 192.168.100.0

broadcast 192.168.100.255

gateway 10.0.2.15

* ifconfig: to check again
* service networking restart: to start the changes made
* Do this to the slaves too, but incremement the address by 1
* apt-get update: in all
* apt-get install build-essential: in all
* apt-get install mongodb: in all
* mkdir –p /data/db: in all
* mkdir /data/configdb: in all
* chown /data/configdb: in all
* chown ishank /data/configdb: in all
* mongod –configsvr: in all config servers

(1st config server waiting on port 27019)

* mongos --configdb 192.168.100.104:27019, 192.168.100.105:27019,192.168.100.106:27019 --port 27020(in master)
* mongod –sharsvr: in all slaves(listening on 27018 in all)
* mongo 192.168.100.100:27020/admin(to add mongo queries via admin previledges)

1. show dbs
2. sh.status():to see if there are any shards already
3. sh.addShard(“192.168.100.101:27018”)
4. sh.addShard(“192.168.100.102:27018”)
5. sh.addShard(“192.168.100.103:27018”)
6. sh.status()
7. db.runCommand({enablesharding:”testDB”})
8. sh.shardCollection(“testDB.testData”, {“name”:1})
9. sh.status()
10. sh.getBalancerState()
11. mongostat –discover: to visually see statistics how much data is being imported as you run the below command.
12. mongo import -d IshankDB -c CrimeData --type csv --file noida.csv --headerline --host 192.168.100.100:27020 --authenticationDatabase admin
13. db.CrimeData.getShardDistribution(): to see how much data each shard contains

NFS Shared Folder Setup:

* apt-get install nfs-kernel-server portmap: master
* mkdir /mirror: master
* chown nobody:nogroup /mirror: master
* pico /etc/exports: add these lines: master

/mirror \*(rw,sync)

* exportfs –a: master
* apt-get install nfs-common portmap: in all slaves
* mkdir –p /mirror
* ls /mirror
* /etc/init.d/nfs-kernel-server start: (master) To start the server
* Mount 192.168.100.100:/mirror /mirror: in all slaves
* df –h: to check of its really mounted: slaves
* touch test: in master
* ls /mirror: slaves will also show the test file

**Mpich Setup**

* switch to mirror nfs shared folder
* wget <http://www.mpich.org/static/downloads/3.0.4/mpich-3.0.4.tar.gz>
* tar xvf mpich-3.0.4.tar.gz
* cd mpich-3.0.4/
* apt-get install build-essential
* ./configure --prefix=mirror/mpich2: if error shows about the fortran compiler execute below command)
* ./configure --prefix=mirror/mpich2 --disable-f77 --disable-fc
* make
* make install
* export PATH=/mirror/mpich2/bin:$PATH
* export LD\_LIBRARY\_PATH=”/mirror/mpich2/lib:$LD\_LIBRARY\_PATH”
* pico /etc/environment: add “/mirror/mpich2/bin:” to the starting of the path.
* htop: gives u an indication of the processes; run this in all
* apt-get install htop(if above doesn’t’ work)
* pico hosts:add these lines

192.168.100.100

192.168.100.101

192.168.100.102

192.168.100.103