ssh-keygen

sudo apt-get update

sudo apt-get upgrade

sudo apt-get install emacs

<http://www.modmypi.com/blog/tutorial-how-to-give-your-raspberry-pi-a-static-ip-address>

**Master Node**

cat /etc/network/interfaces

ifconfig

sudo nano /etc/network/interfaces

auto lo

iface lo inet loopback

auto eth0

iface etho inet static

address 10.0.0.10

netmask 255.255.255.0

network 10.0.0.0

broadcast 10.0.0.255

sudo reboot

ls /var/lib/dhcp

sudo rm /var/lib/dhcp/\*

sudo /etc/init.d/networking restart

cat /etc/network/interfaces

sudo nano /etc/network/interfaces

1 sudo raspbi-config

**2 sudo raspi-config**

**3 ssh-keygen**

4 sudo apt-get update

5 sudo reboot

**6 sudo apt-get update**

7 sudo apt-get upgrade

**8 sudo apt-get install emacs**

9 cat /etc/network/interfaces

10 ifconfig

11 cat /etc/network/interfaces

12 edit /etc/network/interfaces

**13 sudo nano /etc/network/interfaces**

14 sudo reboot

15 ifconfig

16 ls /var/lib/dhcp

**17 sudo rm /var/lib/dhcp/\***

**18 sudo /etc/init.d/networking restart**

19 ifconfig

20 cat /etc/network/interfaces

21 sudo ifdown eth0

22 sudo ifup eth0

23 ifconfig

24 cat /etc/network/interfaces

25 sudo nano /etc/network/interfaces

26 sudo /etc/init.d/networking restart

27 ifconfig

28 **sudo reboot**

29 ls

**30 ssh 10.0.0.11**

31 nano cpi.py

**32 git clone https://github.com/sdsc/sandbox-cluster-guide.git**

33 ls

**34 cd sandbox-cluster-guide/**

35 ls

**36 git checkout beta-workshop**

**37 cd examples/**

38 ls

**39 nano host**

40 mpirun -np 2 cpi.py

41 mpirun -np 2 -hostfile host cpi.py

42 cp cpi.py host ¬/

43 cp cpi.py host ~/

44 cd

45 ls

46 scp -r host cpi.py 10.0.0.11:

47 ssh 10.0.0.11

48 ssh 10.0.0.11 ls

49 pwd

50 mpirun -np 2 -hostfile host /home/pi/cpi.py

51 sysctl

52 sysctl -a

Set the port forwarding on the master node

**53\* sysctl -a | grep forward**

54 sudo nano sysctl

**55 sudo nano /etc/sysctl.conf**

**Uncomment the line that states net.ipv4.ip\_forward=1**

**56 sudo sysctl -p**

**Should return the line that you uncommented**

**net.ipv4.ip\_forward=1**

**Restart the network with**

**sudo /etc/init.d/networking restart**

57 mpirun -np 2 -hostfile host /home/pi/cpi.py

58 cd sandbox-cluster-guide/

59 ls

60 cd config/

61 cd pinode-0/

62 ls

63 cd network/

64 ls

65 cat iptables

**66 sudo iptables-restore < ./iptables**

67 cat iptables

68 sudo iptables -L

69 ifconfig

70 cd

71 mpirun -np 2 -hostfile host /home/pi/cpi.py

72 ssh 10.0.0.11

73 mpirun -np 2 -hostfile host /home/pi/cpi.py

74 history

75 history > commands.txt

=======================================

**1 sudo raspi-config**

**2 ssh-keygen**

**3 sudo reboot**

4 sudo apt-get updates

**5 sudo apt-get update**

6 sudo apt-get upgrade

**7 sudo apt-get install emacs openmpi-bin libopenmpi-dev python-mpi4py vim**

**8 cat /etc/network/interfaces**

**9 sudo nano /etc/network/interfaces**

10 /etc/init.d/networking restart

**sudo rm /var/lib/dhcp/\***

**11 sudo /etc/init.d/networking restart**

**12 ifconfig**

13 sudo reboot

14 ifconfig

15 ssh-keygen

16 ls .ssh/

**17 cp .ssh/id\_rsa.pub .ssh/authorized\_keys**

**18 ssh localhost**

**19 scp -r .ssh 10.0.0.10:**

20 ssh 10.0.0.10

21 ls

22 sudo nano /etc/network/interfaces

auto lo

iface lo inet loopback

auto eth0

iface etho inet static

address 10.0.0.10

netmask 255.255.255.0

network 10.0.0.0

broadcast 10.0.0.255

gateway 10.0.0.10

allow-hotplug wlan0

iface wlan0 inet manual

wpa-conf /etc/wpa\_supplicant/wpa\_supplicant.conf

allow-hotplug wlan1

iface wlan1 inet manual

wpa-conf /etc/wpa\_supplicant/wpa\_supplicant.conf

23 sudo reboot

24 sudo ping 8.8.8.8

25 history > commands\_node1.txt

*add the nfs server by hand to the master node*

*raspberry pi single user mode for both the pi user and the root user*

*take upgrade out of the script*

*Example:*

*VISUALS*

*grab json datasets from a URL and parse the data to display some type of information*