

hostname

```
1. sudo vim /etc/hostname
```

network

```
1. sudo vim /etc/network/interfaces
```

```
1. # The loopback network interface
2. auto lo
3. iface lo inet loopback
4.
5. # The primary network interface
6. auto eth0
7. # iface eth0 inet dhcp
8. iface eth0 inet static
9. address 192.168.101.101
10. netmask 255.255.255.0
11. gateway 192.168.102.2
12. dns-nameservers 192.168.101.254 8.8.8.8
```

hosts

```
1. sudo vim /etc/hosts
```

```
1. 127.0.0.1 localhost
2. 127.0.1.1 ubuntu
3. 192.168.101.101 Hadoop-NameNode
4. 192.168.101.102 Hadoop-DataNode-1
5. 192.168.101.103 Hadoop-DataNode-2
6.
7. # The following lines are desirable for IPv6 capable hosts
8. ::1 localhost ip6-localhost ip6-loopback
9. ff02::1 ip6-allnodes
10. ff02::2 ip6-allrouters
```

権限の有効化

```
1. # setting password for root ( All Nodes )
2. sudo passwd root
3.
4. # login as root
5. su - root
```

enable root ssh login (All Nodes)

```
1. sudo vim /etc/ssh/sshd_config
```

```
1. # PermitRootLogin without-password
2. PermitRootLogin yes
```

```
# Package generated configuration file
# See the sshd_config(5) manpage for details

# What ports, IPs and protocols we listen for
Port 22
# Use these options to restrict which interfaces/protocols sshd will bind to
#ListenAddress ::
#ListenAddress 0.0.0.0
Protocol 2
# HostKeys for protocol version 2
HostKey /etc/ssh/ssh_host_rsa_key
HostKey /etc/ssh/ssh_host_dsa_key
HostKey /etc/ssh/ssh_host_ecdsa_key
HostKey /etc/ssh/ssh_host_ed25519_key
#Privilege Separation is turned on for security
UsePrivilegeSeparation yes

# Lifetime and size of ephemeral version 1 server key
KeyRegenerationInterval 3600
ServerKeyBits 1024

# Logging
SyslogFacility AUTH
LogLevel INFO

# Authentication:
LoginGraceTime 120
# PermitRootLogin without-password
PermitRootLogin yes
```

1,1 Top

ssh passwordless login (All Nodes)

パスワードなしでのsshログインが必要となります

```
1. # ssh localhost
2. # ll ~/.ssh
3. # rm ./id_rsa*
4. ssh-keygen -t rsa
```

```

root@hadoop-master:~# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
9d:d5:93:32:16:fd:4b:90:44:f1:0b:ed:ce:1b:00:06 root@hadoop-master
The key's randomart image is:
+--[ RSA 2048 ]-----+
|      E   +=o   |
|      .   =+.   |
|      o= . =+   |
|      ..+.0000  |
|      S o  ..o.  |
|      +.   |
|      +   |
|      o   |
|      .   |
+-----+
root@hadoop-master:~#

```

print rsa key to authorized (All Nodes)

1. `cd ~`
2. `cat .ssh/id_rsa.pub >> .ssh/authorized_keys`

test (All Nodes)

1. `# ssh localhost-name`
2. `ssh localhost`

sent to remote node (Master Node)

1. `scp ~/.ssh/authorized_keys root@remote-node:/root/.ssh/authorized_keys`

JDK (All Nodes)

append ppa

1. `add-apt-repository ppa:webupd8team/java`
2. `apt-get update`

```

root@hadoop-master:~# sudo add-apt-repository ppa:webupd8team/java
Oracle Java (JDK) Installer (automatically downloads and installs Oracle JDK7 / JDK8 / JDK9). There are no actual Java files in this PPA.

More info (and Ubuntu installation instructions):
- for Oracle Java 7: http://www.webupd8.org/2012/01/install-oracle-java-jdk-7-in-ubuntu-via.html
- for Oracle Java 8: http://www.webupd8.org/2012/09/install-oracle-java-8-in-ubuntu-via-ppa.html

Debian installation instructions:
- Oracle Java 7: http://www.webupd8.org/2012/06/how-to-install-oracle-java-7-in-debian.html
- Oracle Java 8: http://www.webupd8.org/2014/03/how-to-install-oracle-java-8-in-debian.html

Oracle Java 9 (for both Ubuntu and Debian): http://www.webupd8.org/2015/02/install-oracle-java-9-in-ubuntu-linux.html

For JDK9, the PPA uses standard builds from: https://jdk9.java.net/download/ (and not the Jigsaw builds!).

Important!!! For now, you should continue to use Java 8 because Oracle Java 9 is available as an early access release! You should only use Oracle Java 9 if you explicitly need it, because it may contain bugs and it might not include the latest security patches! Also, some Java options were removed in JDK9, so you may encounter issues with various Java apps. More information and installation instructions (Ubuntu / Linux Mint / Debian): http://www.webupd8.org/2015/02/install-oracle-java-9-in-ubuntu-linux.html
More info: https://launchpad.net/~webupd8team/+archive/ubuntu/java
Press [ENTER] to continue or ctrl-c to cancel adding it

```

install jdk8 (All Nodes)

1. apt-get install oracle-java8-installer

Package configuration

Configuring oracle-java8-installer

Oracle Binary Code License Agreement for the Java SE Platform Products and JavaFX

You MUST agree to the license available in <http://java.com/license> if you want to use Oracle JDK.

<Ok>

Package configuration

Configuring oracle-java8-installer

In order to install this package, you must accept the license terms, the "Oracle Binary Code License Agreement for the Java SE Platform Products and JavaFX ". Not accepting will cancel the installation.

Do you accept the Oracle Binary Code license terms?

<Yes>

<No>

test (All Nodes)

1. java -version
2. javac -version

```
root@hadoop-master:~# java -version
java version "1.8.0_121"
Java(TM) SE Runtime Environment (build 1.8.0_121-b13)
Java HotSpot(TM) 64-Bit Server VM (build 25.121-b13, mixed mode)
root@hadoop-master:~# javac -version
javac 1.8.0_121
root@hadoop-master:~# |
```