

Steps to install Hadoop Single Node

```
sudo apt-get install update
```

```
sudo apt-get update
```

Check Java on your System (should be 1.7 or later)

If installed check version by using command

```
java -version
```

If not installed then use

```
sudo apt-get install default-jdk
```

```
sudo addgroup hadoop
```

```
sudo adduser -ingroup hadoop hduser
```

hduser is user name you can give any user name

```
sudo adduser hduser sudo
```

```
sudo apt-get install openssh-server
```

```
su - hduser
```

```
cd
```

```
pwd
```

```
ssh-keygen -t rsa -P ""
```

```
cat $HOME/.ssh/id_rsa.pub >> $HOME/.ssh/authorized_keys
```

```
ssh localhost
```

```
exit
```

download the Hadoop 2.9.0 from

<https://archive.apache.org/dist/hadoop/core/hadoop-2.9.0/> and save it to Downloads

```
cd/home/student/Desktop
```

```
ls
```

```
sudo tar -xzvf hadoop-2.9.0.tar.gz
```

```
ls
```

```
sudo mv hadoop-2.9.0 /usr/local/hadoop
```

```
ls
```

```
sudo chown -R hduser /usr/local
```

```
sudo nano ~/.bashrc
```

Configure the file . bashrc

Add the following contents at the end of the file

```
export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64
```

```
export HADOOP_HOME=/usr/local/hadoop
```

```
export PATH=$PATH:$HADOOP_HOME/bin
```

```
export PATH=$PATH:$HADOOP_HOME/sbin
```

```
export HADOOP_MAPRED_HOME=$HADOOP_HOME
```

```
export HADOOP_COMMON_HOME=$HADOOP_HOME
```

```
export HADOOP_HDFS_HOME=$HADOOP_HOME
```

```
export YARN_HOME=$HADOOP_HOME
```

```
export HADOOP_COMMON_LIB_NATIVE_DIR=$HADOOP_HOME/lib/native
```

```
export HADOOP_OPTS="-Djava.library.path=$HADOOP_HOME/lib"
```

```
source ~/.bashrc
```

Configure hadoop-env.sh

```
sudo nano /usr/local/hadoop/etc/hadoop/hadoop-env.sh
```

Add the contents under Java Implementation to use

```
export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64
```

Configure file core-site.xml

```
sudo gedit /usr/local/hadoop/etc/hadoop/core-site.xml
```

add the contents

```
<property>
  <name>fs.default.name</name>
  <value>hdfs://localhost:9000</value>
</property>
```

Configure file hdfs-site.xml

```
sudo gedit /usr/local/hadoop/etc/hadoop/hdfs-site.xml
```

Add the contents

```
<property>
  <name>dfs.replication</name>
  <value>1</value>
</property>
<property>
  <name>dfs.namenode.name.dir</name>
  <value>file:/usr/local/hadoop_tmp/hdfs/namenode</value>
</property>
<property>
  <name>dfs.datanode.data.dir</name>
  <value>file:/usr/local/hadoop_tmp/hdfs/datanode</value>
</property>
```

Configure file yarn-site.xml

```
sudo gedit /usr/local/hadoop/etc/hadoop/yarn-site.xml
```

Configure file mapred-site.xml

```
sudo cp /usr/local/hadoop/etc/hadoop/mapred-site.xml.template
```

```
/usr/local/hadoop/etc/hadoop/mapred-site.xml
```

```
sudo gedit /usr/local/hadoop/etc/hadoop/mapred-site.xml
```

```
sudo mkdir -p /usr/local/hadoop_tmp
```

```
sudo mkdir -p /usr/local/hadoop_tmp/hdfs/namenode
```

```
sudo mkdir -p /usr/local/hadoop_tmp/hdfs/datanode
```

```
sudo chown -R hduser /usr/local/hadoop_tmp
```

```
cd
```

```
hdfs namenode -format
```

```
start-dfs.sh
```

```
start-yarn.sh
```

```
jps
```

Installation of Hadoop is done

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