

**Ex.No: 7****Transfer A File Between Two Virtual Machines****Date:****AIM:**

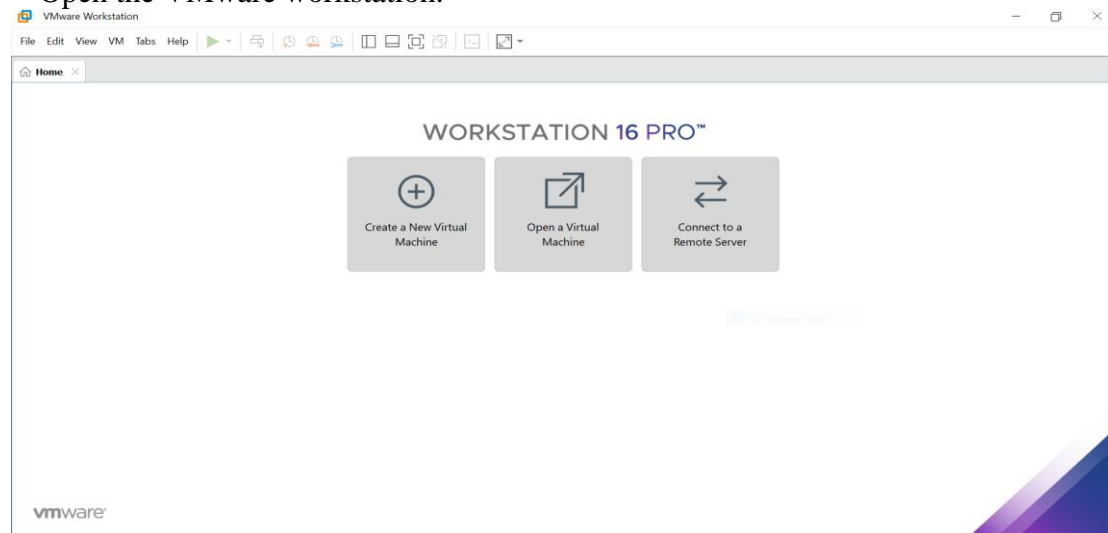
To find a procedure to transfer a file between two independent Virtual machines using Shared folder in VMware Workstation.

**PRE-REQUISITES:**

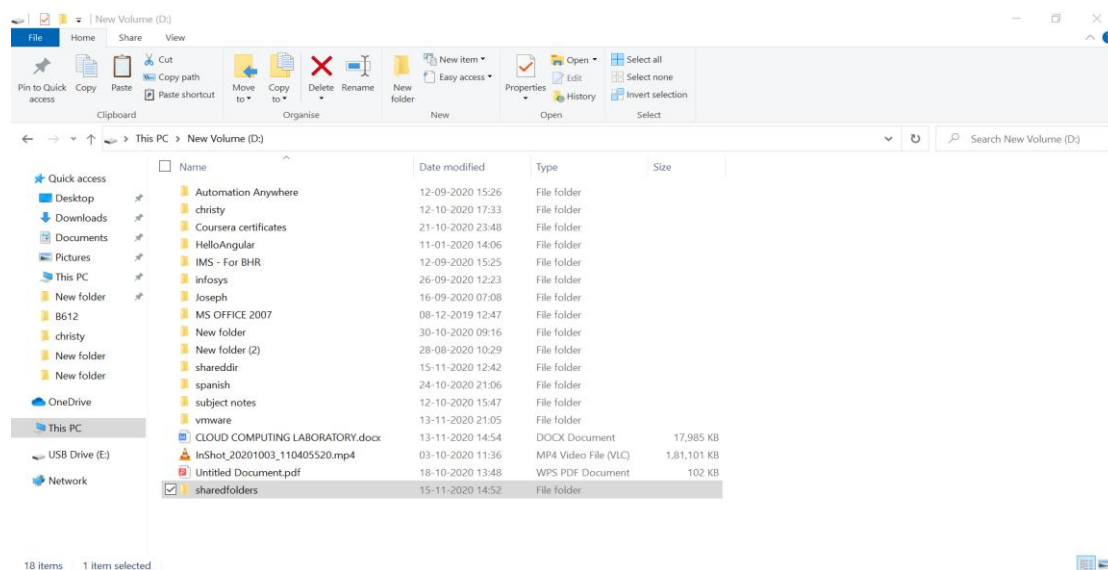
- VMware Workstation
- Two Ubuntu Virtual Machines,
- Text file.

**PROCEDURE:**


- Open the VMware workstation.



- Before turning on the virtual machines, create a shared folder in the host OS



- Choose the people whom you want to share with. Select as everyone.


←  Network access

Choose people to share with


Type a name and then click Add, or click the arrow to find someone.

Everyone

Add

Name	Permission Level
 CHRISTILLA	Owner

[I'm having trouble sharing](#)

 Share

Cancel

- Configure the Shared folder settings.

sharedfolders Properties

General


Sharing

Security

Previous Versions

Customise

Network File and Folder Sharing


 sharedfolders  
Shared

Network Path:  
\\DESKTOP-P6A44UG\sharedfolders

Share...

Advanced Sharing

Set custom permissions, create multiple shares and set other advanced sharing options.

 Advanced Sharing...

Password Protection

People must have a user account and password for this computer to access shared folders.

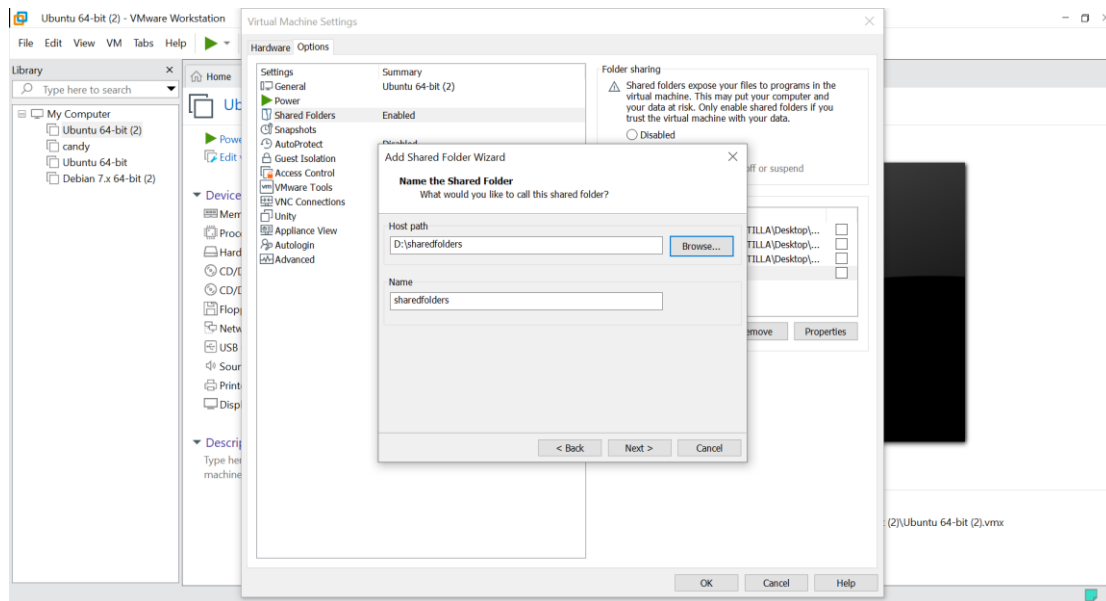
To change this setting, use the [Network and Sharing Centre](#).

OK

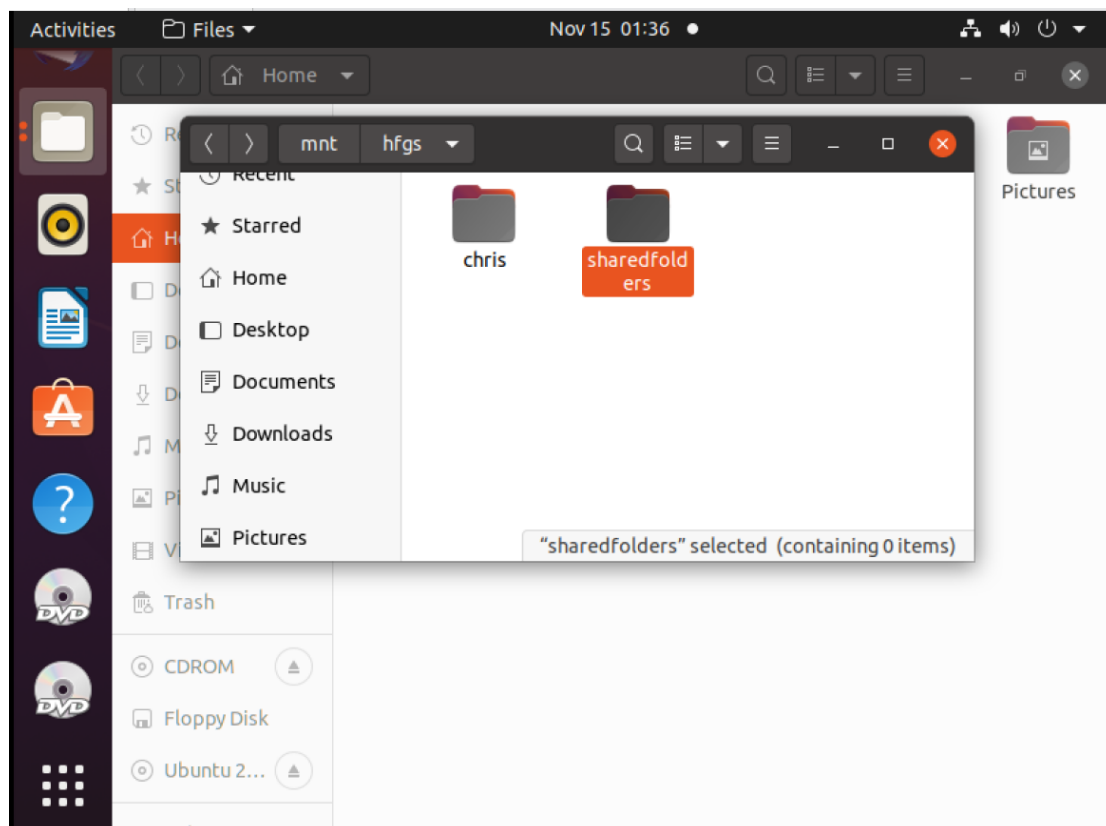
Cancel

Apply

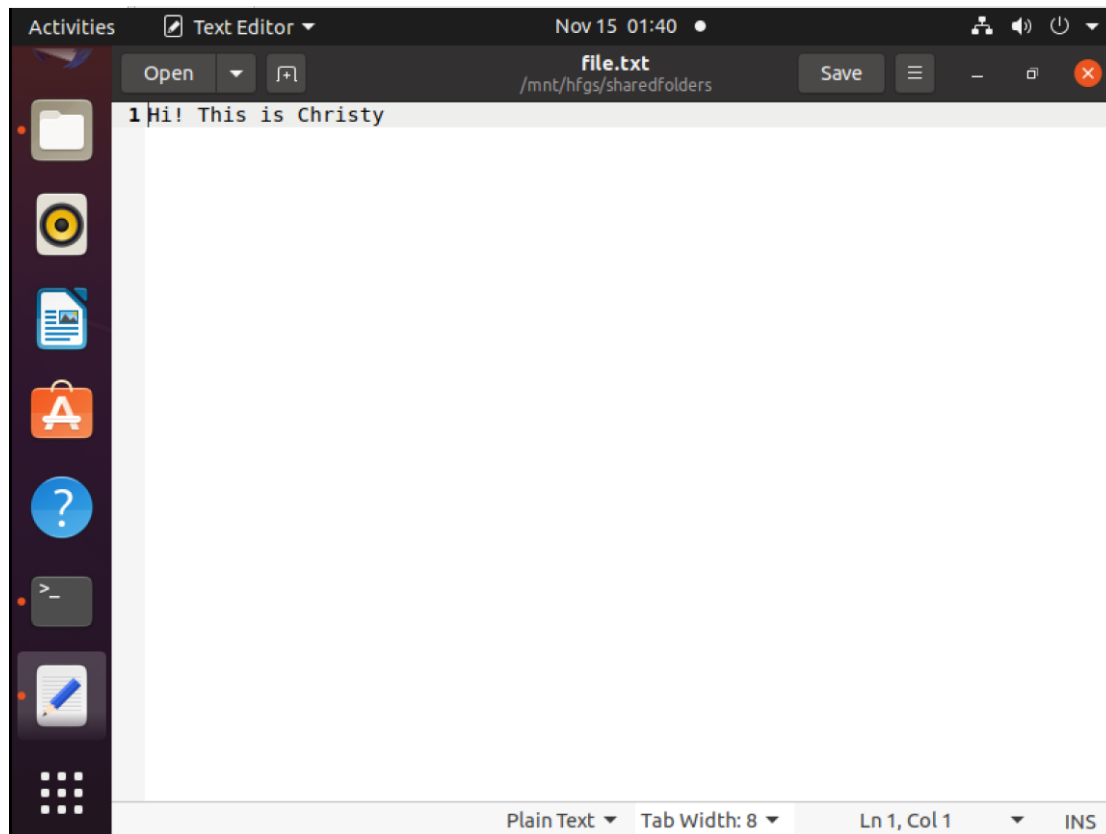
- Click the First Virtual machine and goto **VM - > Settings**. Goto Options and choose Shared Folders and click **Always Enabled**. Add the folder which we want to share.



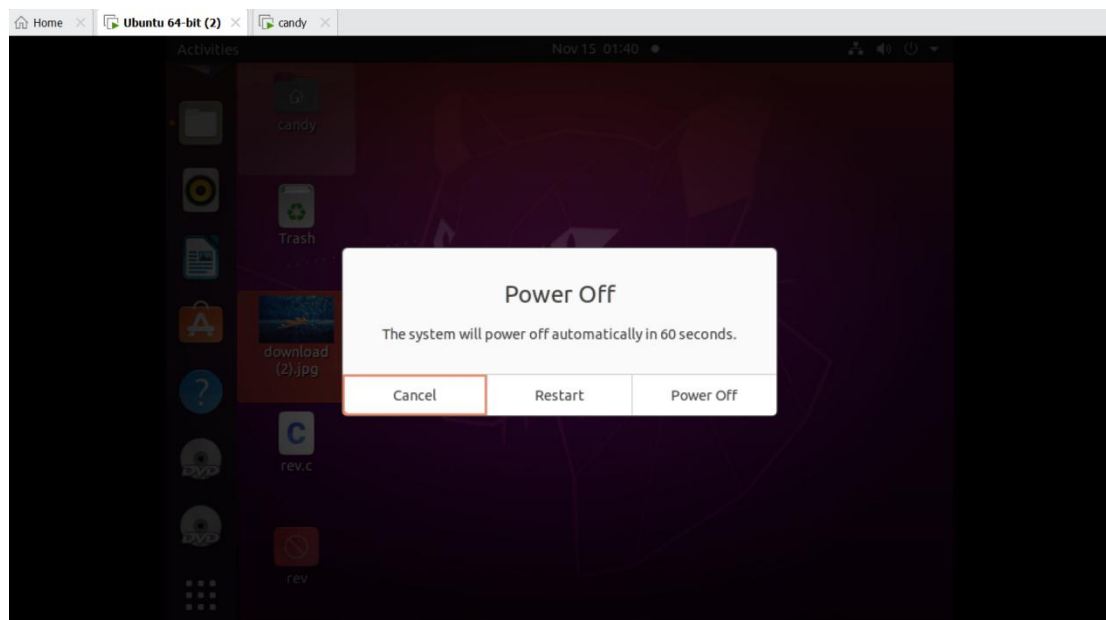
- Click Files and then goto Other locations. Choose Computer ,goto mnt -> hfgs ,so that the shared folder is visible.



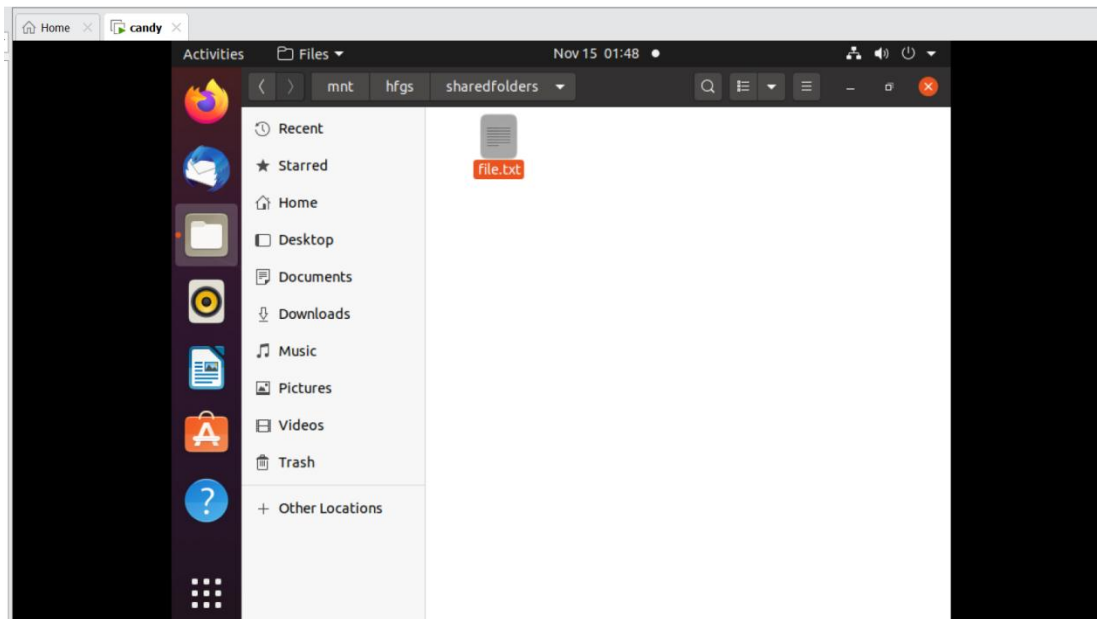
- Now open the file file.txt and edit it's contents.



- Save the file and turn off the first virtual machine.

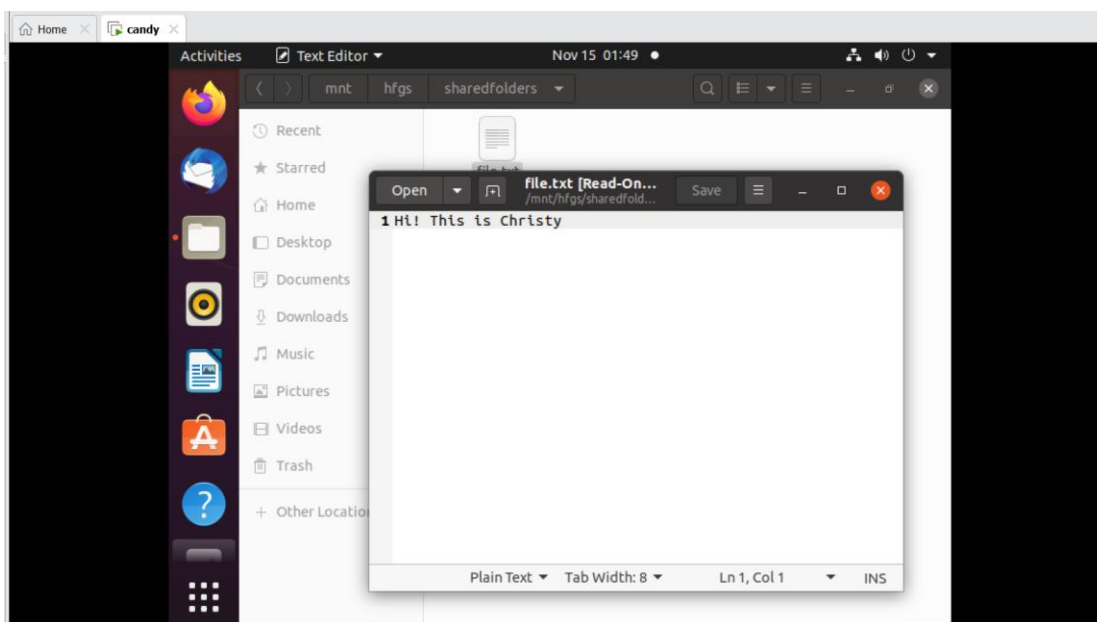


- Turn on the Second Virtual machine and click Files and then click Other locations. Choose Computer ,goto mnt -> hfqs.



- Open the shared folder which you have seen in the previous Virtual machine. Open the folder and open the text file.
- Finally you can see that the file has been transferred from one virtual machine through another virtual machine by using the shared folder method.

### OUTPUT:



### RESULT:

Thus, the transfer of a file between two virtual machines was successfully implemented using the shared folder procedure as well as the correctness has been proved here successfully

**Ex.No: 8.****HADOOP SINGLE NODE CLUSTER****Date:****Aim:**

To find procedure to set up the one node Hadoop cluster.

**Procedure**

1. Open VM – new -> full name -> centos7 -> username -> admin password -> confirm password -> admin.
2. Create folder in D drive D: centos7 Hadoop -> after that goto h/w customs and change memory to 4GB.
3. During installation time create user -> right corner user creation  
Fullname : hadoop.  
User : hadoop.  
Password : hadoop.
4. Copy hadoop 3.0.3 and JDK 1.8.0 from windows to hadoop user desktop/root user and extract jar files there itself.
5. Login to Root user : i) \$ groupadd cluster  
ii) \$usermode -aG cluster hadoop.
6. //Open bashrc file and type the following command in the 'bashrc' file bottom.  
bashrc file present in computer -> home -> Desktop -> Bashrc.

//add the following at the end of file

export JAVA\_HOME=jdk1.8.0\_45

export HADOOP\_HOME=hadoop-2.6.0

export PATH=\$PATH:\$JAVA\_HOME/bin:\$HADOOP\_HOME/bin:\$HADOOP/sbin

export PATH

7. Got to root user and execute bashrc file.  
\$ exec bash.  
\$ source .bashrc  
\$ hadoop -version
8. Open the 'hadoop-env.sh' file and add add java home dir or java folder path gedit  
hadoop-env.sh (Hadoop\_env.sh -> right click and open gedit text editor.)  
JAVA\_HOME = java.path.
9. Copy and Paste the following file to hadoop folder-->etc-->hadoop

**Open vim core-site.xml**

<configuration>

<property>

<name>fs.default.name</name>

<value>hdfs://localhost:9000</value>

</property>

</configuration>

**Open vim mapred-site.xml**

<configuration>

<property>

<name>mapreduce.framework.name</name>

<value>yarn</value>

</property>

<property>

```

<name>mapreduce.job.tracker</name>
<value>localhost:54311</value>
</property>
<property>
<name>mapreduce.tasktracker.map.tasks.maximum</name>
<value>4</value>
</property>
<property>
<name>mapreduce.map.tasks</name>
<value>4</value>
</property>
</configuration>

```

**Open vim hdfs-site.xml // to edit the username in this file**

```

<configuration>
<property>
  <name>dfs.replication</name>
  <value>3</value>
</property>

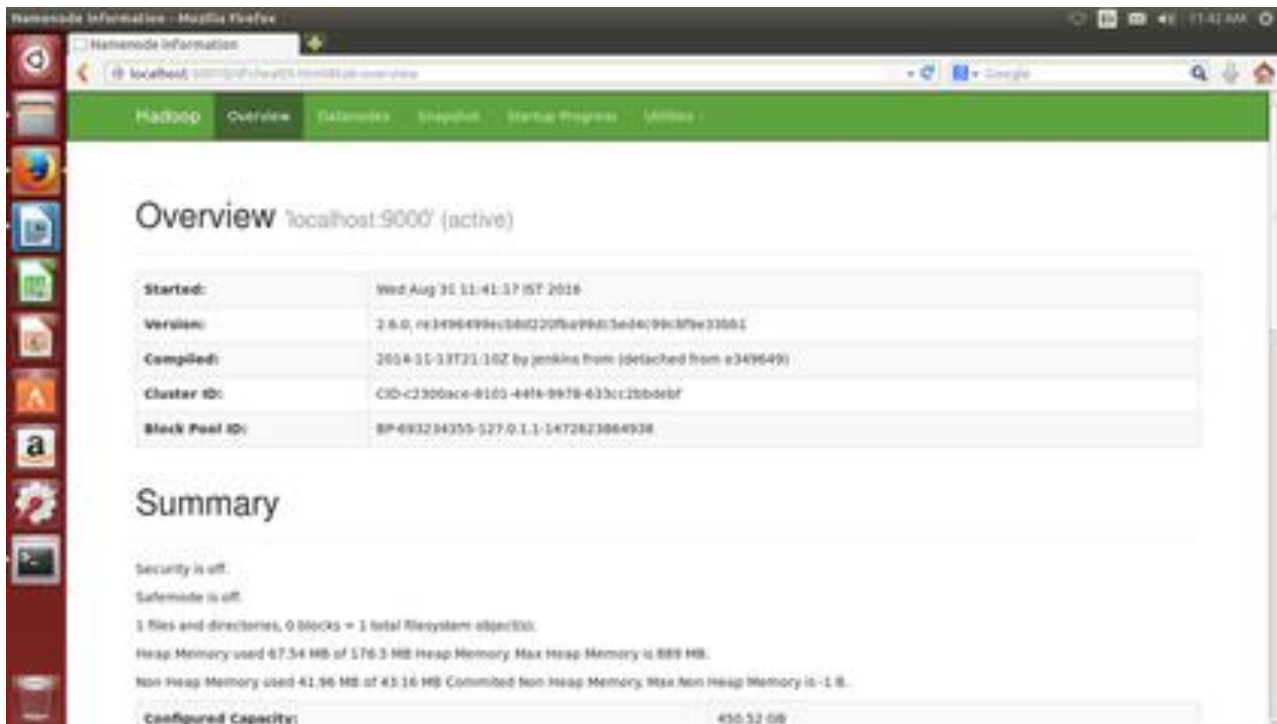
<property>
  <name>dfs.namenode.name.dir</name>
  <value>file:/home/hduser/hdfs/namenode</value>
</property>

<property>
  <name>dfs.datanode.data.dir</name>
  <value>file:/home/hduser/hdfs/datanode</value>
</property>
</configuration>

```

10. Key generation(ssh key) it has 3 commands  
 Ssh -keygen -t rsa -p -f ~/.ssh/id\_rsa.  
 Cot ~/.ssh / id\_rsa.pub >> ~/.ssh/authorised\_keys  
 Ssh localhost (it will ask questions) like (yes/no) gives yes  
 Enter password : hadoop
11. Format the hadoop name node  
 Go to hadoop user login  
 \$hadoop > hdfs namenode -format.
12. Start hadoop  
 Start all .sh (or) Hadoop - 3.0.3/sbin/start\_all.sh
13. Check the nodes that are credited or not  
 \$ jps.  
 If namenode is created -> go the localhost      Open the namenode and datanode.  
 In browser type the following port number  
     localhost:50070  
     localhost:8088  
 If the namenode is not    created execute the below command and repeat steps 11 and 12.  
     rm -r hdfs/

**Output:**  
**NameNode:**



**Overview** 'localhost:9000' (active)

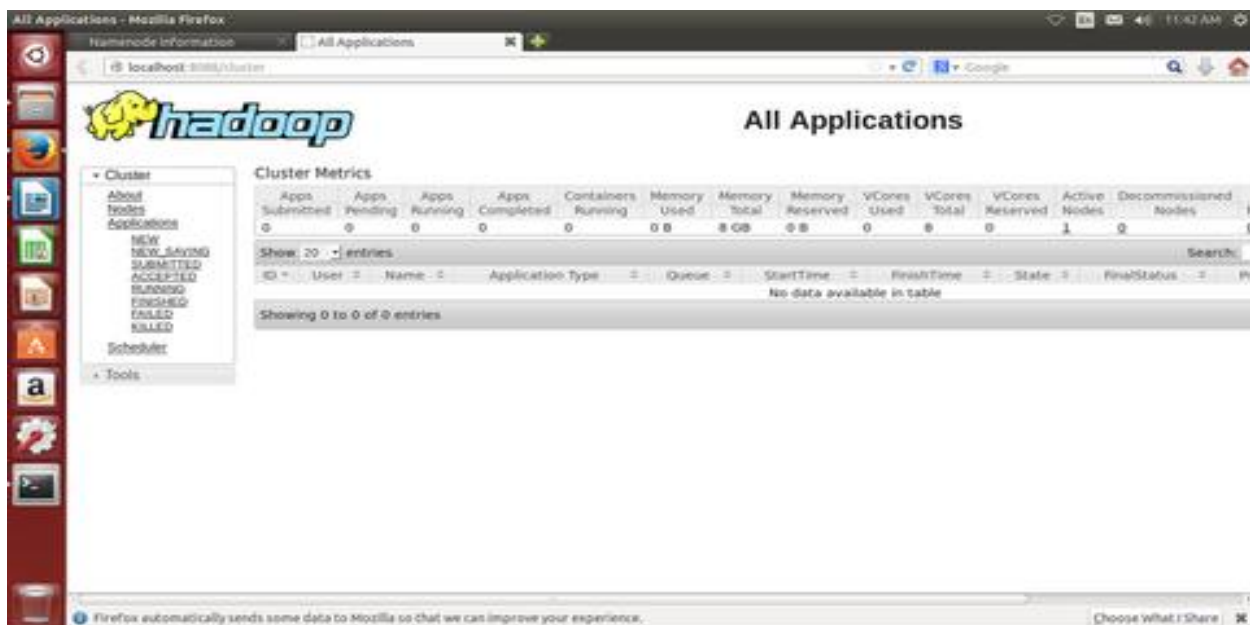
Started:	Wed Aug 31 11:41:57 IST 2018
Version:	2.8.0, r63496499e58d220f8e99d3e8d499c379e33861
Compiled:	2018-11-13T21:16Z by jenkins from [detached from e349649]
Cluster ID:	C3D-c2300ace-8163-44f6-8978-633cc2bbdbcf
Block Pool ID:	BP-693234355-527.0.1.1-1472823864938

**Summary**

Security is off.  
Safemode is off.  
1 files and directories, 0 blocks => 1 total filesystem object(s).  
Heap Memory used 67.54 MB of 576.3 MB Heap Memory. Max Heap Memory is 889 MB.  
Non-Heap Memory used 41.96 MB of 43.16 MB Committed Non-Heap Memory. Max Non-Heap Memory is 1.8 MB.

Configured Capacity: 450.32 GB

**DataNode:**



**All Applications**

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Memory Used	Memory Total	Memory Reserved	V-Cores Used	V-Cores Total	V-Cores Reserved	Active Nodes	Decommissioned Nodes
0	0	0	0	0	0 B	8 GB	0 B	0	0	0	1	0

Show: 20 entries

ID	User	Name	Application Type	Queue	StartTime	FinishTime	State	FinalStatus
No data available in table								

Showing 0 to 0 of 0 entries

**Result:**

Thus the procedure to set up the one node Hadoop cluster has been developed