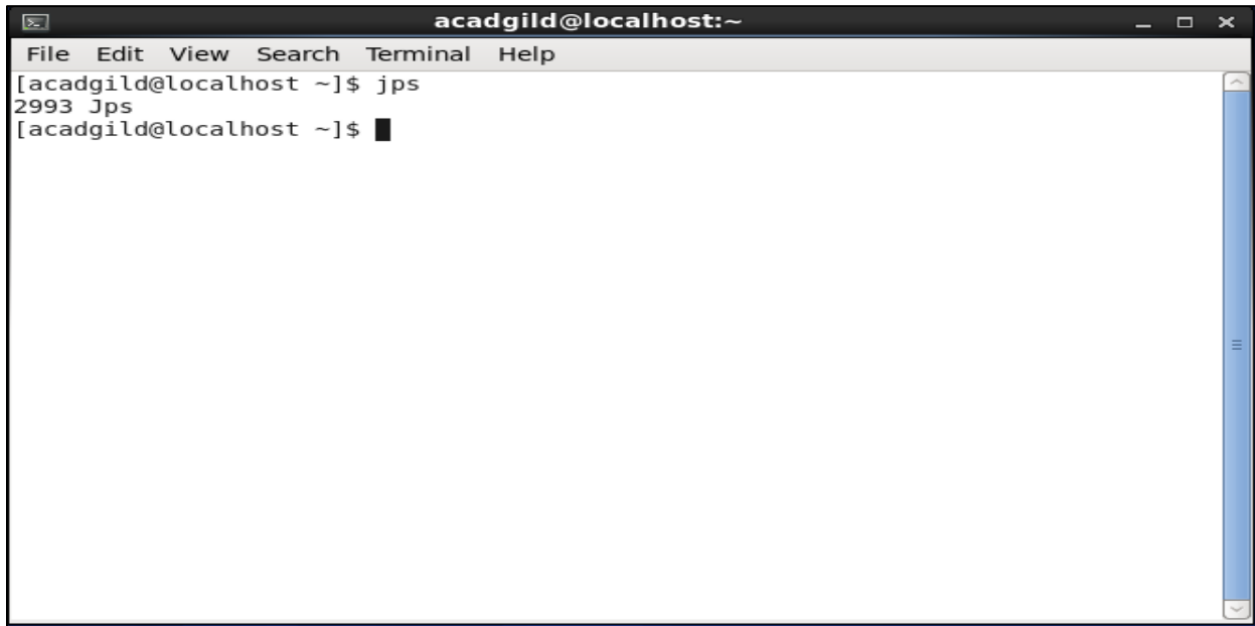


## 1. Jps command

- The Java Virtual Machine has a `jps` tool which is a bit like the `ps` command. `jps` lists all java Processes of a user.
- Using this command, the daemons' status of hadoop in VM can be retrieved.

A screenshot of a terminal window titled 'acadgild@localhost:~'. The window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal shows the command '[acadgild@localhost ~]\$ jps' being entered, followed by the output '2993 Jps' on the next line. The prompt '[acadgild@localhost ~]\$' is shown again on the third line, followed by a cursor. The terminal has a scrollbar on the right side.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ jps  
2993 Jps  
[acadgild@localhost ~]$
```

## 2. Start-all.sh

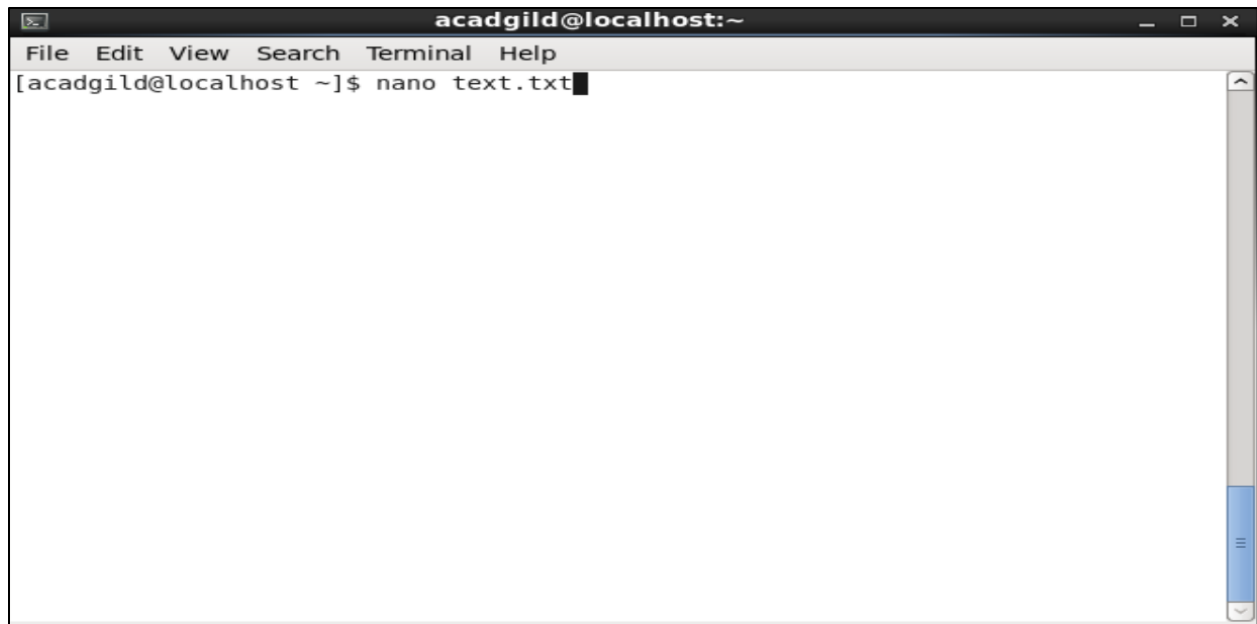
- This command starts all the hadoop daemons' the namenode, datanodes, the jobtracker and tasktrackers.
- This command is Deprecated; it is recommended to use **start-dfs.sh** then **start-mapred.sh**.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ start-all.sh  
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh  
18/03/01 05:03:57 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
Starting namenodes on [localhost]  
localhost: starting namenode, logging to /home/acadgild/install/hadoop/hadoop-2.  
6.5/logs/hadoop-acadgild-namenode-localhost.localdomain.out  
localhost: starting datanode, logging to /home/acadgild/install/hadoop/hadoop-2.  
6.5/logs/hadoop-acadgild-datanode-localhost.localdomain.out  
Starting secondary namenodes [0.0.0.0]  
0.0.0.0: secondarynamenode running as process 3304. Stop it first.  
18/03/01 05:04:30 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
starting yarn daemons  
starting resourcemanager, logging to /home/acadgild/install/hadoop/hadoop-2.6.5/  
logs/yarn-acadgild-resourcemanager-localhost.localdomain.out  
localhost: starting nodemanager, logging to /home/acadgild/install/hadoop/hadoop  
-2.6.5/logs/yarn-acadgild-nodemanager-localhost.localdomain.out  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$
```

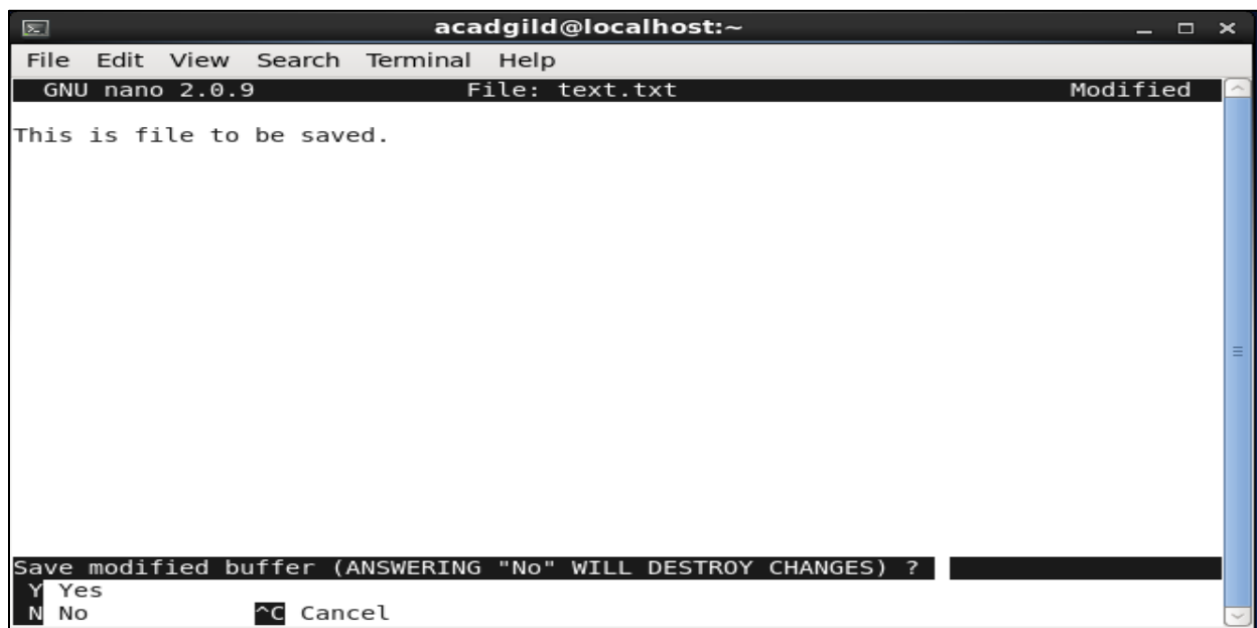
```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ jps  
3571 ResourceManager  
3173 NameNode  
4053 Jps  
3674 NodeManager  
3276 DataNode  
[acadgild@localhost ~]$
```

### 3. Creating a File using Nano Editor

- Nano - [name of a file]
- This command creates file with given file name and provides editor to start inserting text in the same file  
e.g. nano test.txt



- Once file is created you can,
  - o Save the changes by just pressing CTRL + O
  - o To exit from nano editor press CTRL + X
  - o If exiting from modified file, nano editor will prompt for saving the file with options Y / N.
  - o Press Y to save. It may ask for file name to be saved as Press enter.



#### 4. ls commands

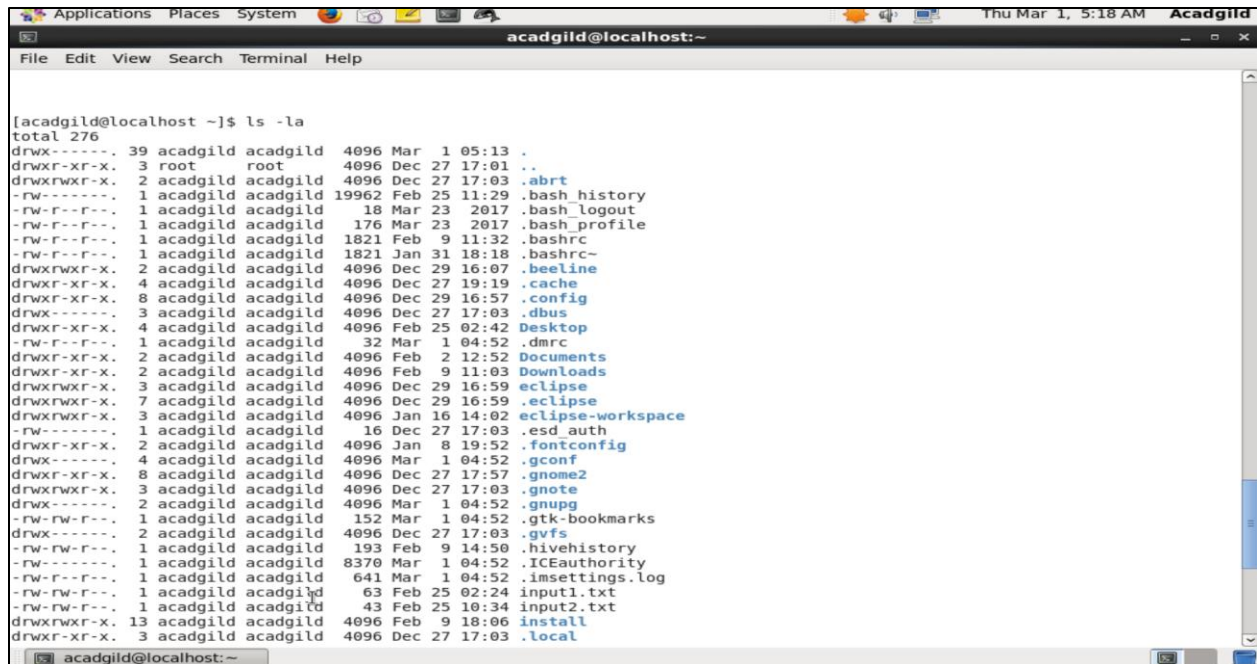
- is a Linux shell command that lists directory contents of files and directories.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ ls  
Desktop      eclipse      input2.txt   Pictures     text.txt  
Documents    eclipse-workspace  install      Public       Videos  
Downloads    input1.txt     Music        Templates  
[acadgild@localhost ~]$
```

- ls [options] [file|dir]
- ls- ls
  - o ist with long format with file size

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ ls -ls  
total 56  
4 drwxr-xr-x.  4 acadgild acadgild 4096 Feb 25 02:42 Desktop  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb  2 12:52 Documents  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb  9 11:03 Downloads  
4 drwxrwxr-x.  3 acadgild acadgild 4096 Dec 29 16:59 eclipse  
4 drwxrwxr-x.  3 acadgild acadgild 4096 Jan 16 14:02 eclipse-workspace  
4 -rw-rw-r--.  1 acadgild acadgild   63 Feb 25 02:24 input1.txt  
4 -rw-rw-r--.  1 acadgild acadgild   43 Feb 25 10:34 input2.txt  
4 drwxrwxr-x. 13 acadgild acadgild 4096 Feb  9 18:06 install  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Music  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Pictures  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Public  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Templates  
4 -rw-rw-r--.  1 acadgild acadgild   26 Mar  1 05:13 text.txt  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Videos  
[acadgild@localhost ~]$
```

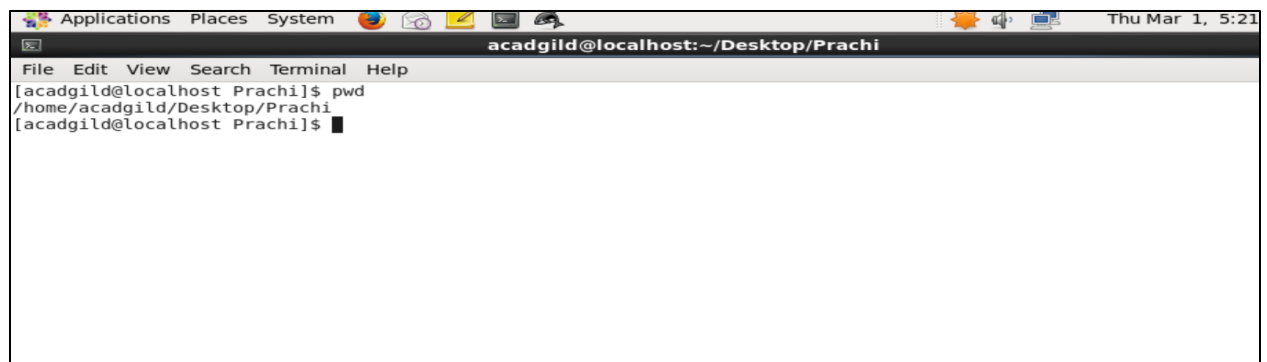
- ls -la
  - o list long format including hidden files



```
[acadgild@localhost ~]$ ls -la
total 276
drwxr-xr-x. 39 acadgild acadgild 4096 Mar  1 05:13 .
drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 ..
drwxrwxr-x.  2 acadgild acadgild 4096 Dec 27 17:03 .abrt
-rw-r--r--.  1 acadgild acadgild 19962 Feb 25 11:29 .bash_history
-rw-r--r--.  1 acadgild acadgild  18 Mar 23 2017 .bash_logout
-rw-r--r--.  1 acadgild acadgild  176 Mar 23 2017 .bash_profile
-rw-r--r--.  1 acadgild acadgild 1821 Feb  9 11:32 .bashrc
-rw-r--r--.  1 acadgild acadgild 1821 Jan 31 18:18 .bashrc~
drwxrwxr-x.  2 acadgild acadgild 4096 Dec 29 16:07 .beeline
drwxr-xr-x.  4 acadgild acadgild 4096 Dec 27 19:19 .cache
drwxr-xr-x.  8 acadgild acadgild 4096 Dec 29 16:57 .config
drwxr-xr-x.  3 acadgild acadgild 4096 Dec 27 17:03 .dbus
drwxr-xr-x.  4 acadgild acadgild 4096 Feb 25 02:42 Desktop
-rw-r--r--.  1 acadgild acadgild  32 Mar  1 04:52 .dmrc
drwxr-xr-x.  2 acadgild acadgild 4096 Feb  2 12:52 Documents
drwxr-xr-x.  2 acadgild acadgild 4096 Feb  9 11:03 Downloads
drwxrwxr-x.  3 acadgild acadgild 4096 Dec 29 16:59 eclipse
drwxrwxr-x.  7 acadgild acadgild 4096 Dec 29 16:59 eclipse
drwxrwxr-x.  3 acadgild acadgild 4096 Jan 16 14:02 eclipse-workspace
-rw-r--r--.  1 acadgild acadgild  16 Dec 27 17:03 .esd_auth
drwxr-xr-x.  2 acadgild acadgild 4096 Jan  8 19:52 .fontconfig
drwxr-xr-x.  4 acadgild acadgild 4096 Mar  1 04:52 .gconf
drwxr-xr-x.  8 acadgild acadgild 4096 Dec 27 17:57 .gnome2
drwxrwxr-x.  3 acadgild acadgild 4096 Dec 27 17:03 .gnote
drwxr-xr-x.  2 acadgild acadgild 4096 Mar  1 04:52 .gnupg
-rw-rw-r--.  1 acadgild acadgild 152 Mar  1 04:52 .gtk-bookmarks
drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 .gvfs
-rw-rw-r--.  1 acadgild acadgild 193 Feb  9 14:50 .hivehistory
-rw-r--r--.  1 acadgild acadgild 8370 Mar  1 04:52 .ICEauthority
-rw-r--r--.  1 acadgild acadgild  641 Mar  1 04:52 .imsettings.log
-rw-rw-r--.  1 acadgild acadgild  63 Feb 25 02:24 input1.txt
-rw-rw-r--.  1 acadgild acadgild  43 Feb 25 10:34 input2.txt
drwxrwxr-x. 13 acadgild acadgild 4096 Feb  9 18:06 install
drwxr-xr-x.  3 acadgild acadgild 4096 Dec 27 17:03 .local
```

## 5. pwd

- To know which directory we are in, we can use the “pwd” command. It gives us the absolute path, which means the path that starts from the root. The root is the base of the Linux file system.



```
[acadgild@localhost Prachi]$ pwd
/home/acadgild/Desktop/Prachi
[acadgild@localhost Prachi]$
```

## 6. rm

- This command is used to delete files and directories. But **rm** cannot simply delete a directory. Use “**rm -r**” to delete a directory.

```
Applications Places System acadgild@localhost:~
File Edit View Search Terminal Help
[acadgild@localhost ~]$ rm text.txt
[acadgild@localhost ~]$ ls -ls
total 52
4 drwxr-xr-x. 4 acadgild acadgild 4096 Feb 25 02:42 Desktop
4 drwxr-xr-x. 2 acadgild acadgild 4096 Feb 2 12:52 Documents
4 drwxr-xr-x. 2 acadgild acadgild 4096 Feb 9 11:03 Downloads
4 drwxrwxr-x. 3 acadgild acadgild 4096 Dec 29 16:59 eclipse
4 drwxrwxr-x. 3 acadgild acadgild 4096 Jan 16 14:02 eclipse-workspace
4 -rw-rw-r--. 1 acadgild acadgild 63 Feb 25 02:24 input1.txt
4 -rw-rw-r--. 1 acadgild acadgild 43 Feb 25 10:34 input2.txt
4 drwxrwxr-x. 13 acadgild acadgild 4096 Feb 9 18:06 install
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Music
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Pictures
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Public
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Templates
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Videos
[acadgild@localhost ~]$
```

## 7. mkdir - creates a folder

```
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ mkdir testing
[acadgild@localhost ~]$ ls -ls
total 56
4 drwxr-xr-x. 4 acadgild acadgild 4096 Feb 25 02:42 Desktop
4 drwxr-xr-x. 2 acadgild acadgild 4096 Feb 2 12:52 Documents
4 drwxr-xr-x. 2 acadgild acadgild 4096 Feb 9 11:03 Downloads
4 drwxrwxr-x. 3 acadgild acadgild 4096 Dec 29 16:59 eclipse
4 drwxrwxr-x. 3 acadgild acadgild 4096 Jan 16 14:02 eclipse-workspace
4 -rw-rw-r--. 1 acadgild acadgild 63 Feb 25 02:24 input1.txt
4 -rw-rw-r--. 1 acadgild acadgild 43 Feb 25 10:34 input2.txt
4 drwxrwxr-x. 13 acadgild acadgild 4096 Feb 9 18:06 install
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Music
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Pictures
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Public
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Templates
4 drwxrwxr-x. 2 acadgild acadgild 4096 Mar 1 05:24 testing
4 drwxr-xr-x. 2 acadgild acadgild 4096 Dec 27 17:03 Videos
[acadgild@localhost ~]$
```

## 8. rmdir

to delete a directory. But **rmdir** can only be used to delete an *empty* directory. To delete a directory containing files, use **rm**.



```
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ rmdir testing
[acadgild@localhost ~]$ ls -ls
total 52
4 drwxr-xr-x.  4 acadgild acadgild 4096 Feb 25 02:42 Desktop
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb  2 12:52 Documents
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb  9 11:03 Downloads
4 drwxrwxr-x.  3 acadgild acadgild 4096 Dec 29 16:59 eclipse
4 drwxrwxr-x.  3 acadgild acadgild 4096 Jan 16 14:02 eclipse-workspace
4 -rw-rw-r--.  1 acadgild acadgild   63 Feb 25 02:24 input1.txt
4 -rw-rw-r--.  1 acadgild acadgild   43 Feb 25 10:34 input2.txt
4 drwxrwxr-x. 13 acadgild acadgild 4096 Feb  9 18:06 install
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Music
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Pictures
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Public
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Templates
4 drwxr-xr-x.  2 acadgild acadgild 4096 Dec 27 17:03 Videos
[acadgild@localhost ~]$ █
```

## 9. cp

- this command is used to copy files through the command line. It takes two arguments:  
The first is the location of the file to be copied, the second is where to copy.
- Content of first file to be copied

```
Applications Places System acadgild@lo
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ nano copy1.txt
[acadgild@localhost ~]$ cat copy1.txt
first file to be copied

[acadgild@localhost ~]$ █
```

- Copied file to another location

```
[acadgild@localhost ~]$ cp copy1.txt /home/acadgild/Desktop/Prachi
[acadgild@localhost ~]$ ls /home/acadgild/Desktop/Prachi
copy1.txt Day5 new file
[acadgild@localhost ~]$ ls -ls /home/acadgild/Desktop/Prachi
total 8
4 -rw-rw-r--. 1 acadgild acadgild   25 Mar 1 05:30 copy1.txt
4 drwxrwxr-x. 3 acadgild acadgild 4096 Feb 25 10:24 Day5
0 -rw-rw-r--. 1 acadgild acadgild    0 Feb 25 09:31 new file
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ █
```

## 10. echo

- The "echo" command helps us move some data, usually text into a file.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ echo this is appended text to copy1.txt >>copy1.txt  
[acadgild@localhost ~]$ cat copy1.txt  
first file to be copied  
this is appended text to copy1.txt  
[acadgild@localhost ~]$
```

## 11. cat

- This command is to display the contents of a file. It is usually used to easily view programs.

```
[acadgild@localhost ~]$ cat copy1.txt  
first file to be copied  
  
this is appended text to copy1.txt  
[acadgild@localhost ~]$
```

## 12. sudo

- A widely used command in the Linux command line, **sudo** stands for "SuperUser Do". So, if you want any command to be done with administrative or root privileges, you can use the **sudo** command.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ sudo service sshd start  
[sudo] password for acadgild:  
[acadgild@localhost ~]$
```



### 13. Ifconfig

- ifconfig stands for "interface configuration". It is used to view and change the configuration of the network interfaces on your system.

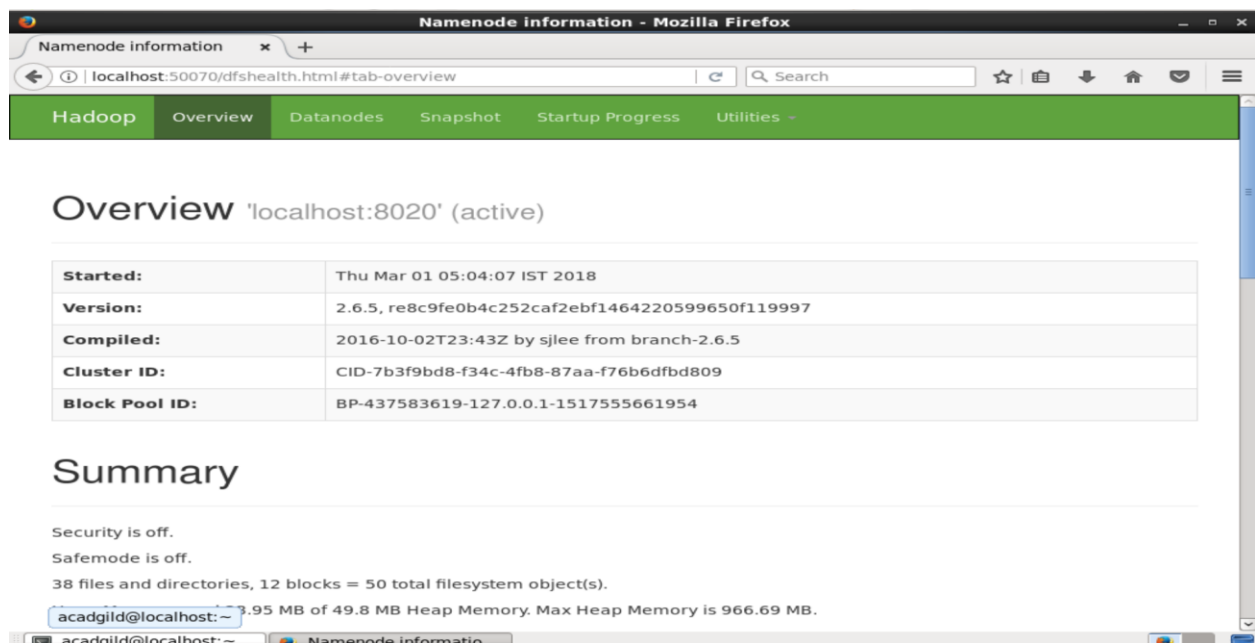
```
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ ifconfig
eth12      Link encap:Ethernet  HWaddr 08:00:27:49:99:91
           inet addr:192.168.0.3  Bcast:192.168.0.255  Mask:255.255.255.0
           inet6 addr: fe80::a00:27ff:fe49:9991/64 Scope:Link
           UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
           RX packets:71572 errors:0 dropped:0 overruns:0 frame:0
           TX packets:30942 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:107776191 (102.7 MiB)  TX bytes:2304677 (2.1 MiB)

eth13      Link encap:Ethernet  HWaddr 08:00:27:C3:39:0F
           inet addr:10.0.2.15  Bcast:10.0.2.255  Mask:255.255.255.0
           inet6 addr: fe80::a00:27ff:fec3:390f/64 Scope:Link
           UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
           RX packets:2 errors:0 dropped:0 overruns:0 frame:0
           TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:1180 (1.1 KiB)  TX bytes:1152 (1.1 KiB)

lo         Link encap:Local Loopback
           inet addr:127.0.0.1  Mask:255.0.0.0
           inet6 addr: ::1/128 Scope:Host
           UP LOOPBACK RUNNING  MTU:65536  Metric:1
           RX packets:8119 errors:0 dropped:0 overruns:0 frame:0
           TX packets:8119 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:0
           RX bytes:1159286 (1.1 MiB)  TX bytes:1159286 (1.1 MiB)

[acadgild@localhost ~]$ █
```

## Details Of HDFS



Namenode information - Mozilla Firefox

Namenode information x +

localhost:50070/dfshealth.html#tab-overview

Search

Hadoop Overview Datanodes Snapshot Startup Progress Utilities -

### Overview 'localhost:8020' (active)

<b>Started:</b>	Thu Mar 01 05:04:07 IST 2018
<b>Version:</b>	2.6.5, re8c9fe0b4c252caf2ebf1464220599650f119997
<b>Compiled:</b>	2016-10-02T23:43Z by sjlee from branch-2.6.5
<b>Cluster ID:</b>	CID-7b3f9bd8-f34c-4fb8-87aa-f76b6dfbd809
<b>Block Pool ID:</b>	BP-437583619-127.0.0.1-1517555661954

### Summary

Security is off.

Safemode is off.

38 files and directories, 12 blocks = 50 total filesystem object(s).

acadgild@localhost:~ 3.95 MB of 49.8 MB Heap Memory. Max Heap Memory is 966.69 MB.

acadgild@localhost:~ Namenode information

Namenode information

localhost:50070/dfshealth.html#tab-datanode

Search

Hadoop

Overview

Datanodes

Snapshot

Startup Progress

Utilities

## Datanode Information

In operation

Node	Last contact	Admin State	Capacity	Used	Non DFS Used	Remaining	Blocks	Block pool used	Failed Volumes	Version
localhost (127.0.0.1:50010)	0	In Service	17.11 GB	552 KB	11.75 GB	5.36 GB	12	552 KB (0%)	0	2.6.5

Decomissioning

Node	Last contact	Under replicated blocks	Blocks with no live replicas	Under Replicated Blocks in files under construction
------	--------------	-------------------------	------------------------------	---

acadgild@localhost: ~

Namenode informatio...

Write about dfs health page