

Assignment 1

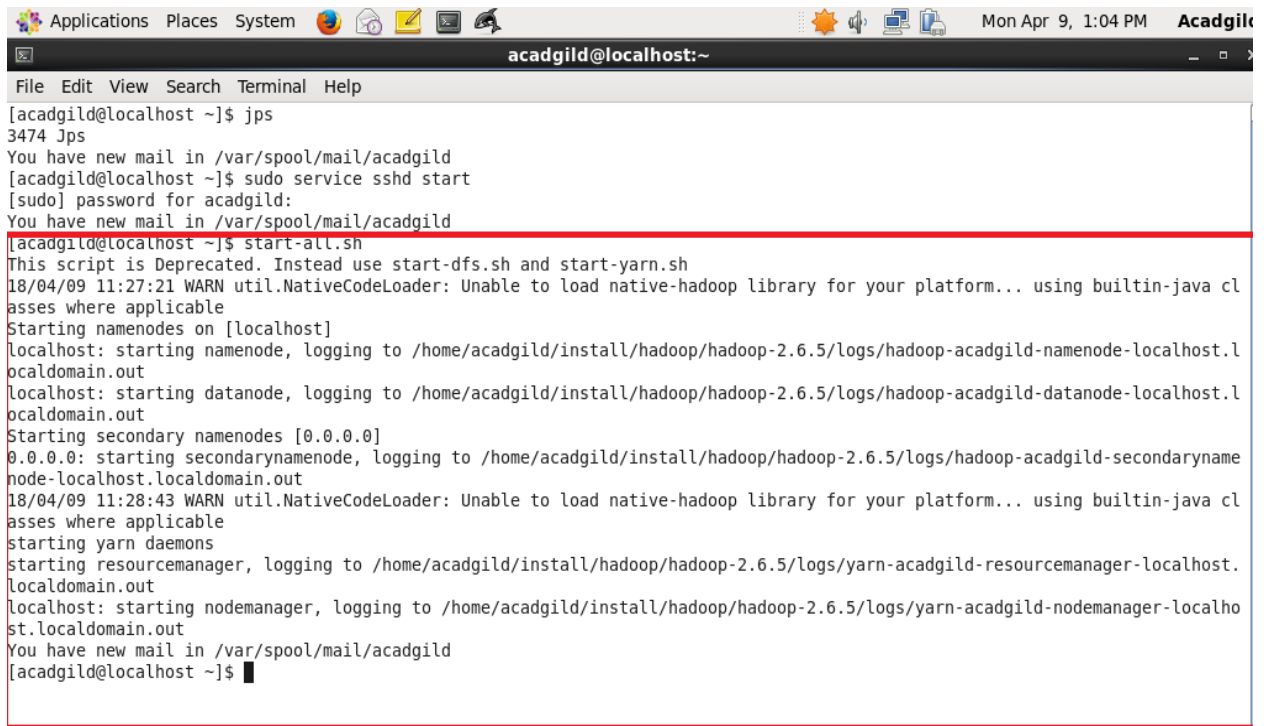
1. Start Hadoop Single Node in Acadgild VM.

Command : start-all.sh

Explanation : used to start Hadoop deamons

[DataNode,NameNode,Secondary NameNode,Node Manager,Resource Manager]

Screenshot:



```
Applications Places System [icons] Mon Apr 9, 1:04 PM Acadgild
acadm@localhost:~
File Edit View Search Terminal Help
[acadm@localhost ~]$ jps
3474 Jps
You have new mail in /var/spool/mail/acadm
[acadm@localhost ~]$ sudo service sshd start
[sudo] password for acadm:
You have new mail in /var/spool/mail/acadm
[acadm@localhost ~]$ start-all.sh
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh
18/04/09 11:27:21 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Starting namenodes on [localhost]
localhost: starting namenode, logging to /home/acadm/install/hadoop/hadoop-2.6.5/logs/hadoop-acadm-namenode-localhost.localdomain.out
localhost: starting datanode, logging to /home/acadm/install/hadoop/hadoop-2.6.5/logs/hadoop-acadm-datanode-localhost.localdomain.out
Starting secondary namenodes [0.0.0.0]
0.0.0.0: starting secondarynamenode, logging to /home/acadm/install/hadoop/hadoop-2.6.5/logs/hadoop-acadm-secondarynamenode-localhost.localdomain.out
18/04/09 11:28:43 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
starting yarn daemons
starting resourcemanager, logging to /home/acadm/install/hadoop/hadoop-2.6.5/logs/yarn-acadm-resourcemanager-localhost.localdomain.out
localhost: starting nodemanager, logging to /home/acadm/install/hadoop/hadoop-2.6.5/logs/yarn-acadm-nodemanager-localhost.localdomain.out
You have new mail in /var/spool/mail/acadm
[acadm@localhost ~]$
```

2. Run JPS command to see the deamons running:

Command : jps

Explanation: used to check the running hadoop deamons in the machine.

Screenshot:

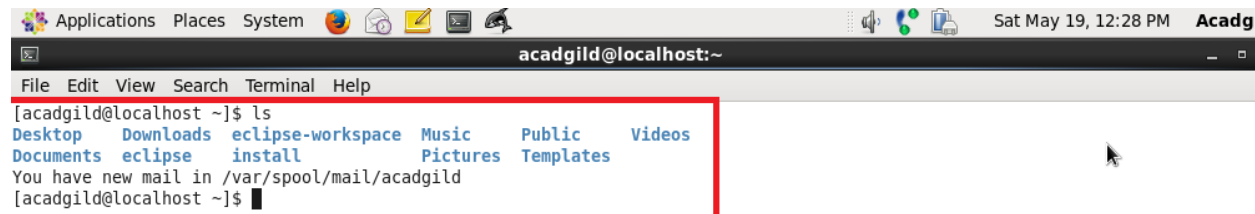
```
asses where applicable
starting yarn daemons
starting resourcemanager, logging to /home/acadgild/install/hadoo
localdomain.out
localhost: starting nodemanager, logging to /home/acadgild/insta
st.localdomain.out
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ jps
7824 Jps
4128 ResourceManager
3765 DataNode
4229 NodeManager
3671 NameNode
3944 SecondaryNameNode
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
```

3. Run Unix command:

- **ls:**

Explanation: lists all the files (or) directories in the current directory.

Screenshot:



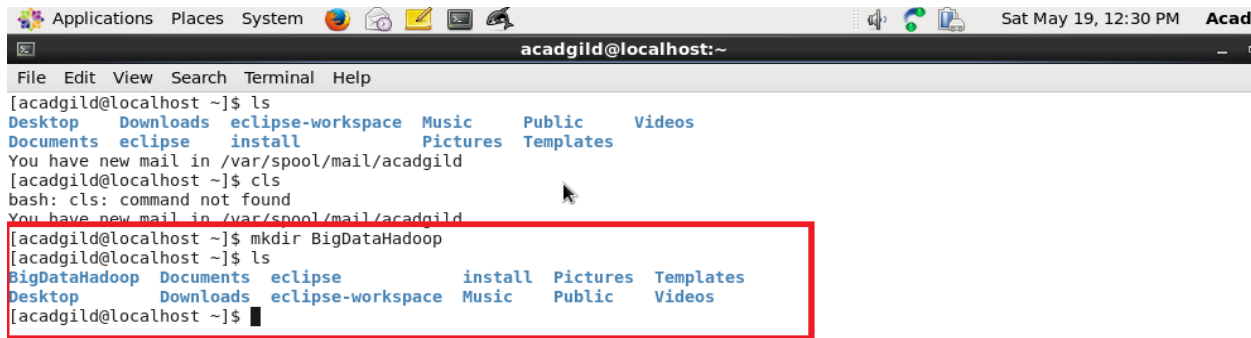
The screenshot shows a terminal window titled 'acadgild@localhost:~'. The terminal output for the 'ls' command is as follows:

```
[acadgild@localhost ~]$ ls
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
Documents  eclipse  install  Pictures  Templates
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
```

- **mkdir:**

Explanation:used to create a directory

Screenshot:



A terminal window titled 'acadgild@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

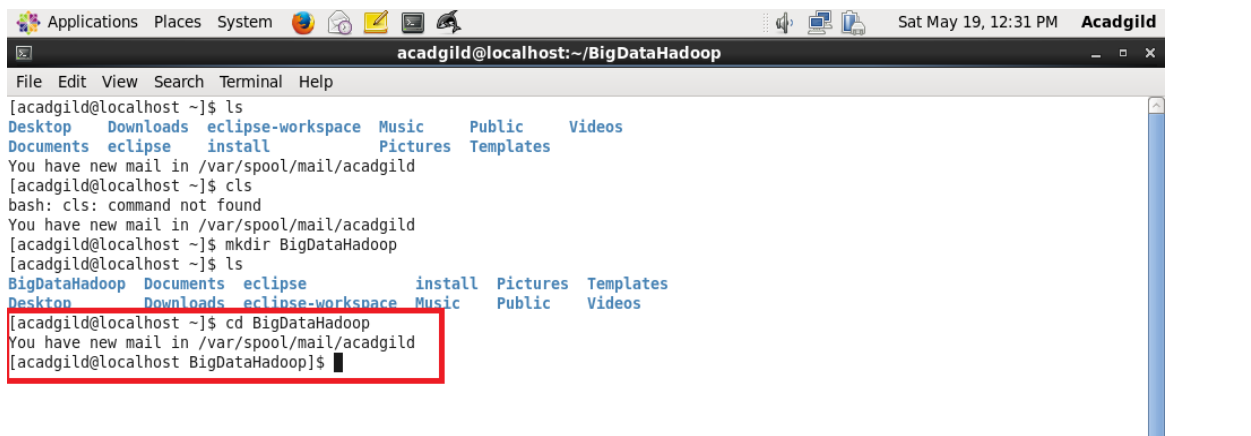
```
[acadgild@localhost ~]$ ls
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
Documents  eclipse  install  Pictures  Templates
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ cls
bash: cls: command not found
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ mkdir BigDataHadoop
[acadgild@localhost ~]$ ls
BigDataHadoop  Documents  eclipse  install  Pictures  Templates
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
[acadgild@localhost ~]$
```

The last two lines of the terminal output are highlighted with a red box.

- **cd:**

Explanation: used to change the directory.

Screenshot:



A terminal window titled 'acadgild@localhost:~/BigDataHadoop' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

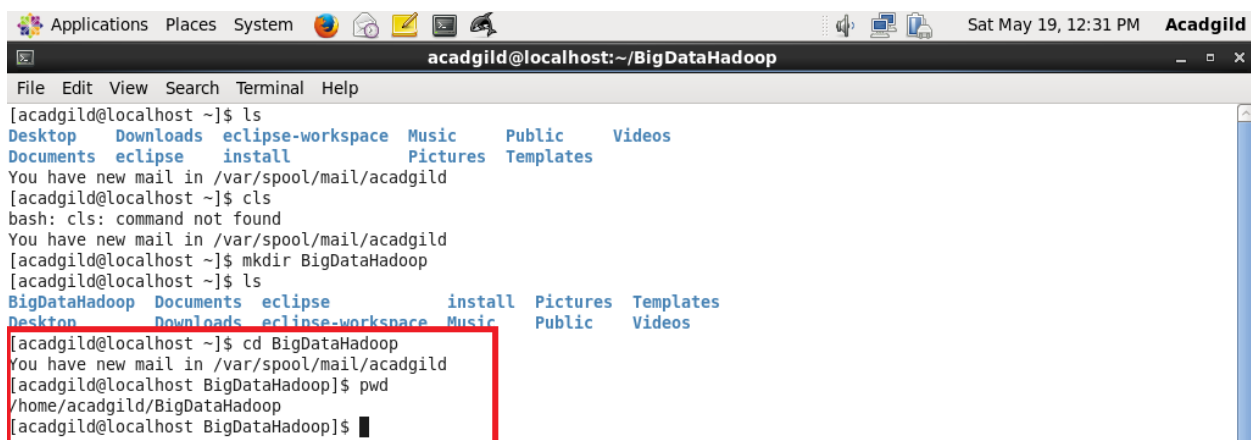
```
[acadgild@localhost ~]$ ls
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
Documents  eclipse  install  Pictures  Templates
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ cls
bash: cls: command not found
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ mkdir BigDataHadoop
[acadgild@localhost ~]$ ls
BigDataHadoop  Documents  eclipse  install  Pictures  Templates
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
[acadgild@localhost ~]$ cd BigDataHadoop
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$
```

The last two lines of the terminal output are highlighted with a red box.

- **pwd:**

Explanation: Displays the present Working Directory

Screenshot:



A terminal window titled 'acadgild@localhost:~/BigDataHadoop' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
[acadgild@localhost ~]$ ls
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
Documents  eclipse  install  Pictures  Templates
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ cls
bash: cls: command not found
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ mkdir BigDataHadoop
[acadgild@localhost ~]$ ls
BigDataHadoop  Documents  eclipse  install  Pictures  Templates
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
[acadgild@localhost ~]$ cd BigDataHadoop
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ pwd
/home/acadgild/BigDataHadoop
[acadgild@localhost BigDataHadoop]$
```

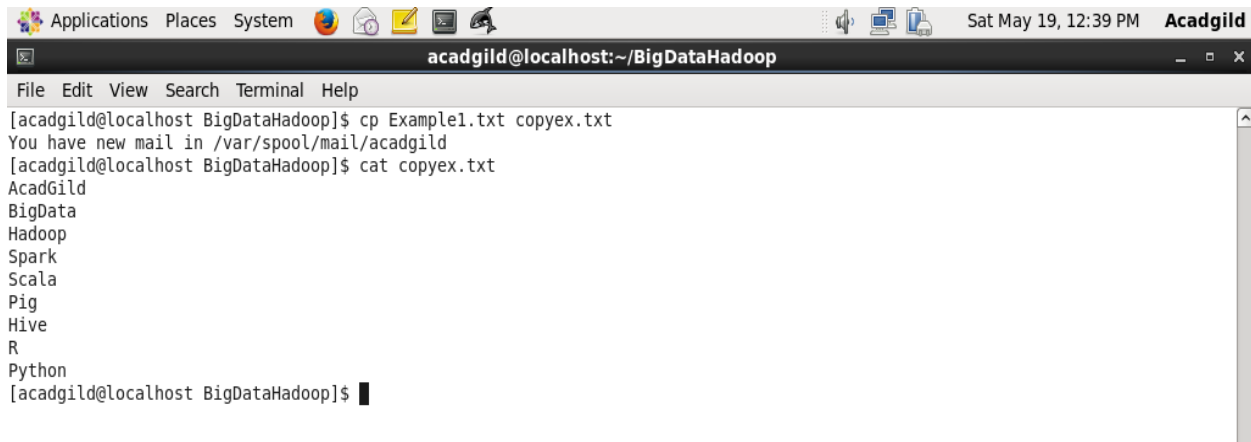
The last three lines of the terminal output are highlighted with a red box.

- **cp:**

Explanation: Used to Copy the file contents of one file to another

Note: In the below screen copyex.txt does not replace Example1.txt.

Screenshot:



The screenshot shows a terminal window titled 'acadgild@localhost:~/BigDataHadoop'. The terminal displays the following commands and output:


```
[acadgild@localhost BigDataHadoop]$ cp Example1.txt copyex.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ cat copyex.txt
AcadGild
BigData
Hadoop
Spark
Scala
Pig
Hive
R
Python
[acadgild@localhost BigDataHadoop]$
```

- **mv:**

Explanation:Used to move the contents of one file to another.

Note: In the below screen move.txt replaces copyex.txt.

Screenshot:



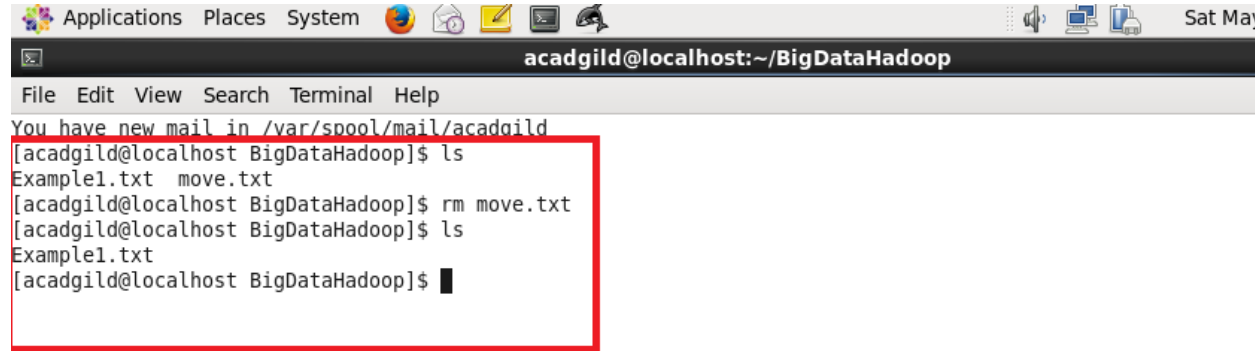
The screenshot shows a terminal window titled 'acadgild@localhost:~/BigDataHadoop'. The terminal displays the following commands and output:

```
[acadgild@localhost BigDataHadoop]$ cp Example1.txt copyex.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ cat copyex.txt
AcadGild
BigData
Hadoop
Spark
Scala
Pig
Hive
R
Python
[acadgild@localhost BigDataHadoop]$ mv copyex.txt move.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ ls
Example1.txt  move.txt
[acadgild@localhost BigDataHadoop]$ cat move.txt
AcadGild
BigData
Hadoop
Spark
Scala
Pig
Hive
R
Python
[acadgild@localhost BigDataHadoop]$
```

- **rm:**

Explanation: Used to remove the file from a directory. Rmdir is used to remove the directory

Screenshot:



```

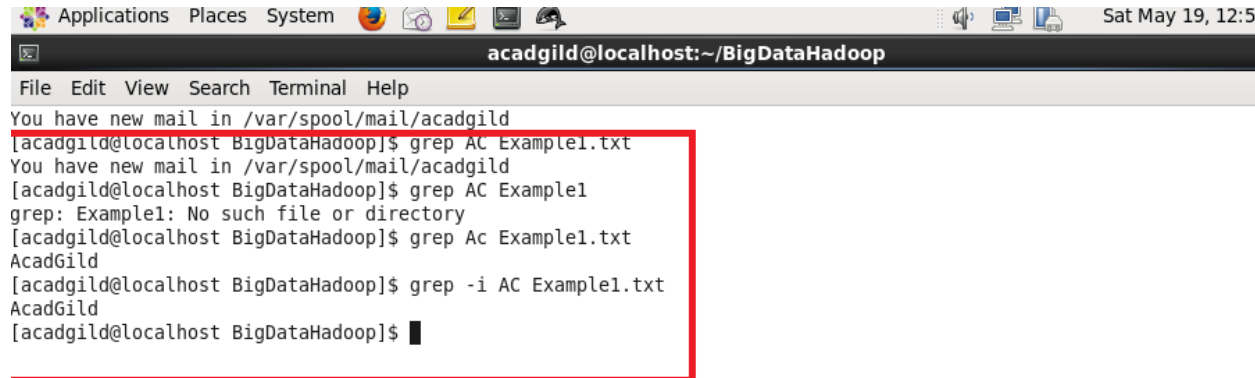
acadmild@localhost:~/BigDataHadoop
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadmild
[acadmild@localhost BigDataHadoop]$ ls
Example1.txt  move.txt
[acadmild@localhost BigDataHadoop]$ rm move.txt
[acadmild@localhost BigDataHadoop]$ ls
Example1.txt
[acadmild@localhost BigDataHadoop]$

```

- **grep:**

Explanation: Used to search a file pattern.

Screenshot:



```

acadmild@localhost:~/BigDataHadoop
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadmild
[acadmild@localhost BigDataHadoop]$ grep AC Example1.txt
You have new mail in /var/spool/mail/acadmild
[acadmild@localhost BigDataHadoop]$ grep AC Example1
grep: Example1: No such file or directory
[acadmild@localhost BigDataHadoop]$ grep Ac Example1.txt
Acadmild
[acadmild@localhost BigDataHadoop]$ grep -i AC Example1.txt
Acadmild
[acadmild@localhost BigDataHadoop]$

```

4. Create a file using nano editor and add few data. Display the contents of the file using cat command.

Explanation : Nano command is used to create a new file.

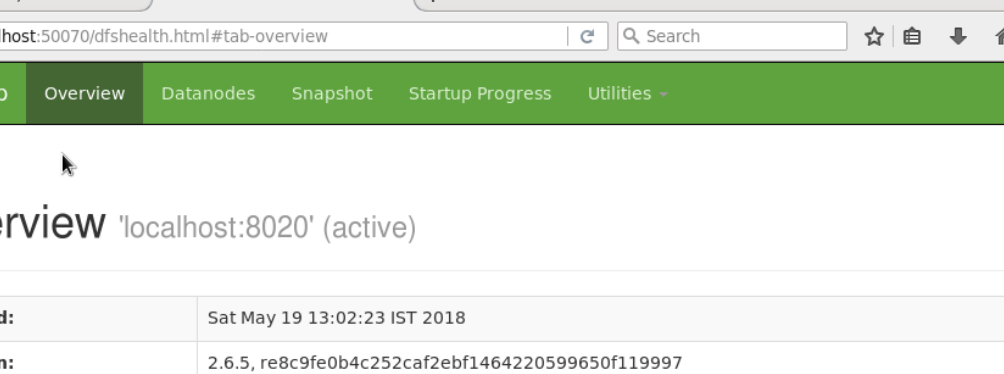
Cat command is used to display the contents of the file.

Screenshot:

A terminal window titled 'acadgild@localhost: ~/BigDataHadoop' with a menu bar (File, Edit, View, Search, Terminal, Help) and a top bar showing system icons, date (Sat May 19, 12:38 PM), and user (Acadgild). The terminal shows a sequence of commands: 'ls' (listing files), 'cls' (clearing screen), 'mkdir BigDataHadoop' (creating directory), 'cd BigDataHadoop' (changing directory), 'nano Example1.txt' (creating file), and 'cat Example1.txt' (displaying file contents). The file contents are: 'AcadGild', 'BigData', 'Hadoop', 'Spark', 'Scala', 'Pig', 'Hive', 'R', 'Python'. A red rectangle highlights the 'nano Example1.txt' and 'cat Example1.txt' commands and their output.

```
[acadgild@localhost ~]$ ls
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
Documents  eclipse  install  Pictures  Templates
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ cls
bash: cls: command not found
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ mkdir BigDataHadoop
[acadgild@localhost ~]$ ls
BigDataHadoop  Documents  eclipse  install  Pictures  Templates
Desktop  Downloads  eclipse-workspace  Music  Public  Videos
[acadgild@localhost ~]$ cd BigDataHadoop
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ pwd
/home/acadgild/BigDataHadoop
[acadgild@localhost BigDataHadoop]$ nano Example1.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$ nano Example1.txt
[acadgild@localhost BigDataHadoop]$ cat Example1.txt
AcadGild
BigData
Hadoop
Spark
Scala
Pig
Hive
R
Python
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost BigDataHadoop]$
```

5. Open hdfs web page by typing localhost:50070 in the browser. Check all the details of HDFS



Started:	Sat May 19 13:02:23 IST 2018
Version:	2.6.5, re8c9fe0b4c252caf2ebf1464220599650f119997
Compiled:	2016-10-02T23:43Z by sjlee from branch-2.6.5
Cluster ID:	CID-7b3f9bd8-f34c-4fb8-87aa-f76b6dfbd809
Block Pool ID:	BP-437583619-127.0.0.1-1517555661954

Summary

Security is off.

Safemode is off.

26 files and directories, 3 blocks = 29 total filesystem object(s).

Heap Memory used 37.38 MB of 55.95 MB Heap Memory. Max Heap Memory is 966.69 MB.