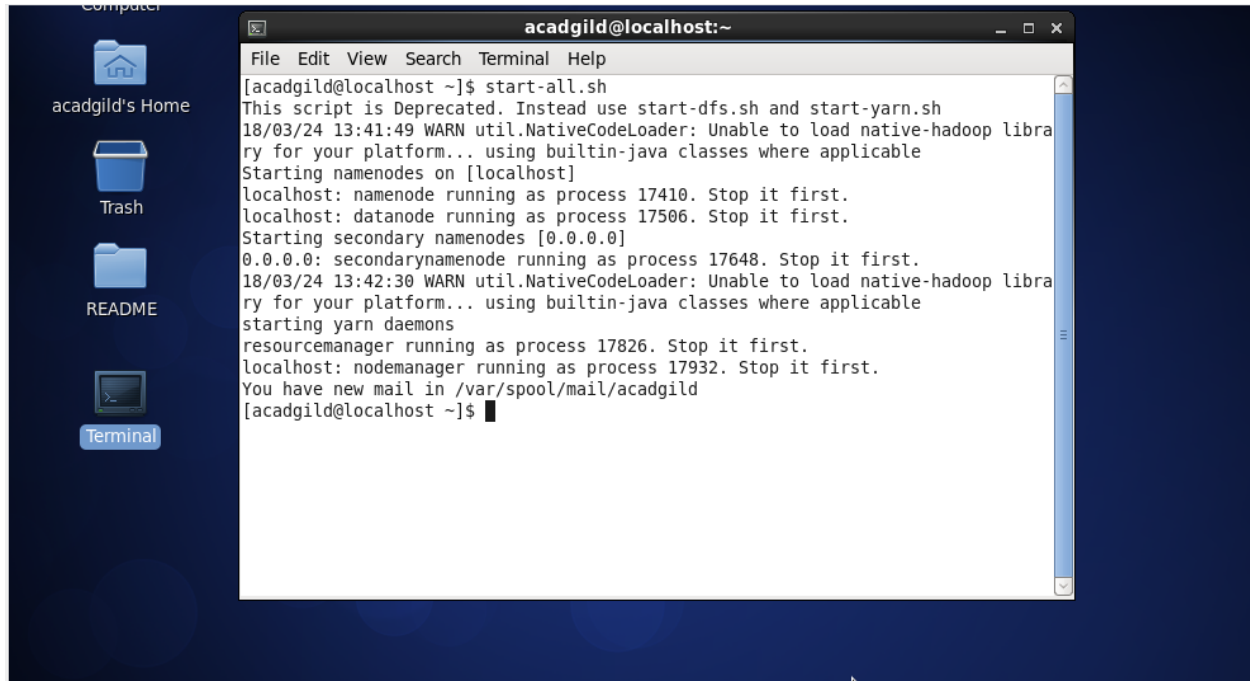


Session 1 - Assignment 1

Tasks:

1) Start Hadoop singnode on acadgild VM .The command is start-all.sh

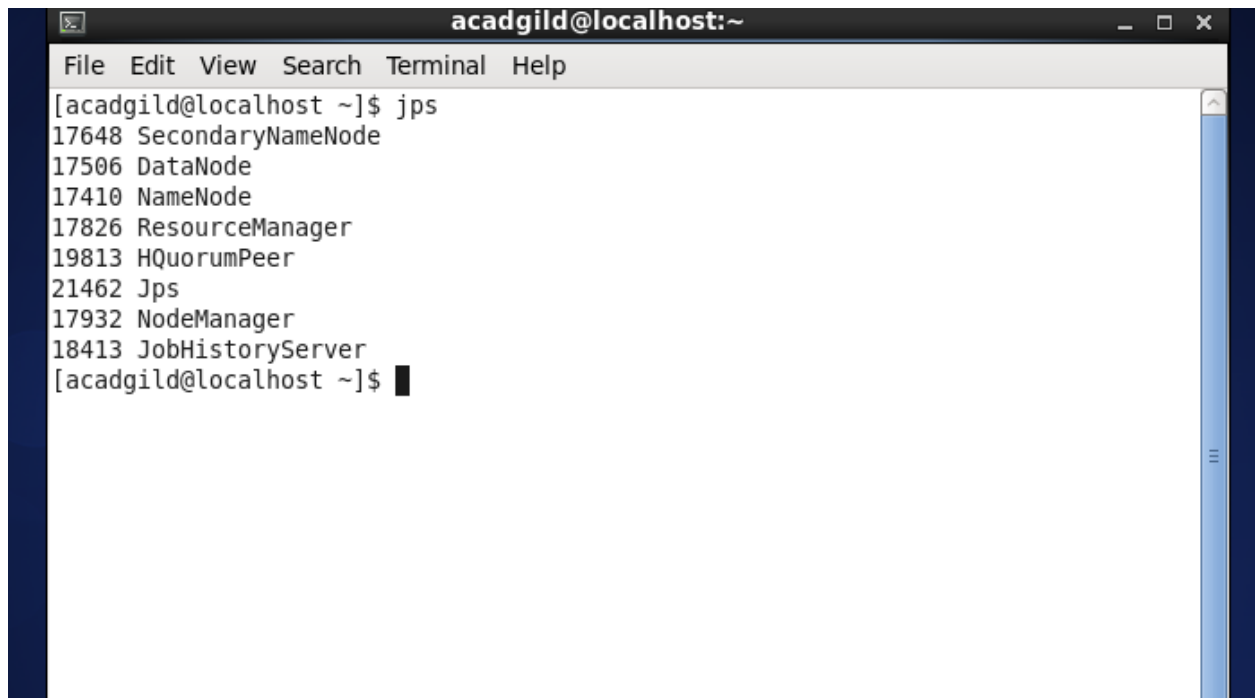
Output :



The screenshot shows a Linux desktop environment with a dark blue background. On the left side, there is a sidebar with icons for 'Computer', 'acadmild's Home', 'Trash', 'README', and 'Terminal'. The 'Terminal' icon is highlighted. A terminal window is open, titled 'acadmild@localhost:~'. The terminal output shows the execution of the 'start-all.sh' script. The script starts by displaying a deprecation warning and then proceeds to start the Hadoop NameNode, DataNode, Secondary NameNode, and Yarn daemons. The output includes process IDs and timestamps for each component.

```
acadmild@localhost:~  
File Edit View Search Terminal Help  
[acadmild@localhost ~]$ start-all.sh  
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh  
18/03/24 13:41:49 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
Starting namenodes on [localhost]  
localhost: namenode running as process 17410. Stop it first.  
localhost: datanode running as process 17506. Stop it first.  
Starting secondary namenodes [0.0.0.0]  
0.0.0.0: secondarynamenode running as process 17648. Stop it first.  
18/03/24 13:42:30 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
starting yarn daemons  
resourcemanager running as process 17826. Stop it first.  
localhost: nodemanager running as process 17932. Stop it first.  
You have new mail in /var/spool/mail/acadmild  
[acadmild@localhost ~]$
```

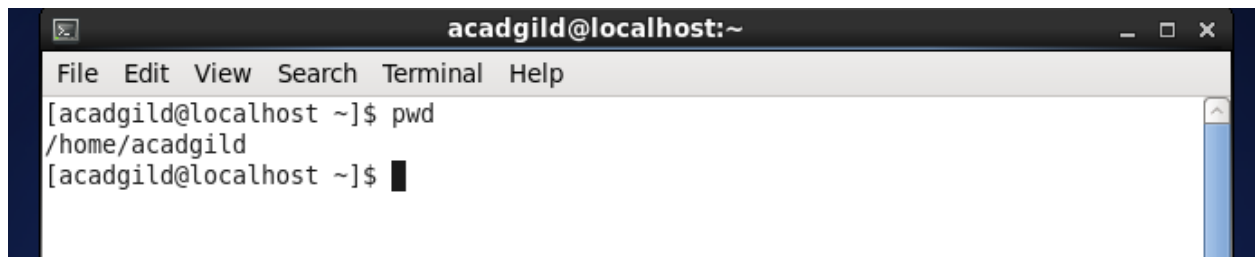
2) Run JPS command to see all Hadoop programs are running.

A terminal window titled 'acadgild@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The command '[acadgild@localhost ~]\$ jps' has been executed, resulting in a list of Java processes: 17648 SecondaryNameNode, 17506 DataNode, 17410 NameNode, 17826 ResourceManager, 19813 HQuorumPeer, 21462 Jps, 17932 NodeManager, and 18413 JobHistoryServer. The prompt '[acadgild@localhost ~]\$' is visible at the bottom.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ jps  
17648 SecondaryNameNode  
17506 DataNode  
17410 NameNode  
17826 ResourceManager  
19813 HQuorumPeer  
21462 Jps  
17932 NodeManager  
18413 JobHistoryServer  
[acadgild@localhost ~]$
```

3) Run few Unix commands like:

a) PWD : To Print working directory.

A terminal window titled 'acadgild@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The command '[acadgild@localhost ~]\$ pwd' has been executed, resulting in the output '/home/acadgild'. The prompt '[acadgild@localhost ~]\$' is visible at the bottom.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ pwd  
/home/acadgild  
[acadgild@localhost ~]$
```

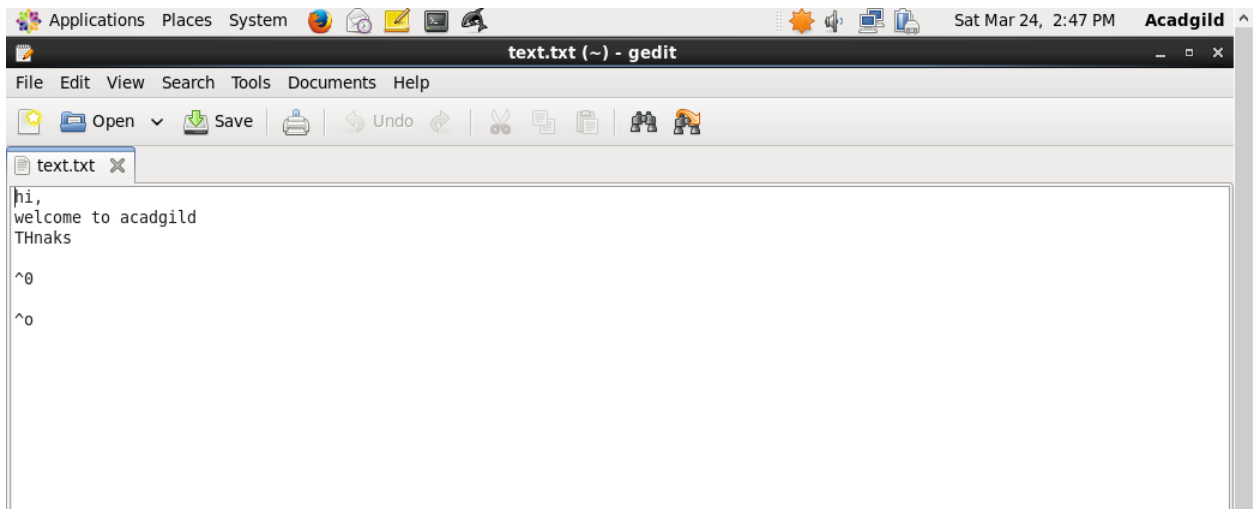
b) ls – Command to list all files

–ls – Command to run on unix shell to list out all files and directories available in a user directory

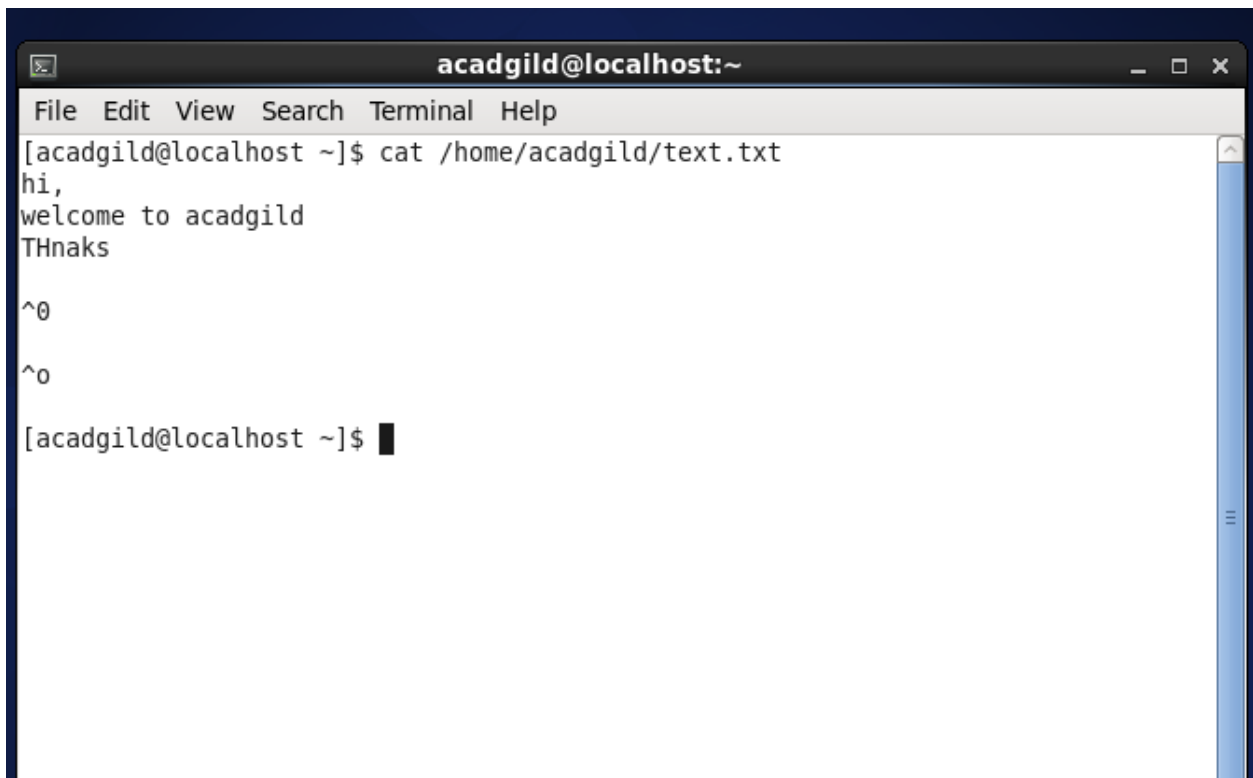
```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ ls  
CHARACTER_SETS.java  eclipse-workspace  pig_1520769646200.log  text.txt  
Desktop              install           pig_1521982349747.log  Videos  
Documents            Music            pighello  
Downloads            Person.java      Public  
eclipse              Pictures          Templates  
[acadgild@localhost ~]$ hadoop fs -ls /user  
18/03/26 03:38:44 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
Found 3 items  
drwxr-xr-x  - acadgild supergroup          0 2018-03-25 17:16 /user/acadgild  
drwxr-xr-x  - acadgild supergroup          0 2018-02-09 14:50 /user/hive  
-rw-r--r--  1 acadgild supergroup        1670 2018-03-25 17:26 /user/pighello  
[acadgild@localhost ~]$
```

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ ls -ls  
total 52  
4 drwxr-xr-x.  4 acadgild acadgild 4096 Mar 24 10:36 Desktop  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb  2 12:52 Documents  
4 drwxr-xr-x.  2 acadgild acadgild 4096 Feb 13 14:24 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 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  
8 -rw-rw-r--.  1 acadgild acadgild 5228 Mar 11 17:33 pig_1520769646200.log  
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 ~]$
```

c) nano text.txt – Create a file to write content.



CAT –Display contents of the file



4) Open HDFS webpage by typing localhost:50070 in the web browser. Check all the details of the HDFS.

Applications
Places
System
Mon Mar 26, 4:11 AM
Acadgild

Namenode information - Mozilla Firefox

Namenode information
+

localhost:50070/dfshealth.html#tab-overview
Search

Hadoop
Overview
Datanodes
Snapshot
Startup Progress
Utilities

Overview 'localhost:8020' (active)

Started:	Sun Mar 25 15:55:16 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.

280 files and directories, 175 blocks = 455 total filesystem object(s).

Heap Memory used 47.25 MB of 60.42 MB Heap Memory. Max Heap Memory is 966.69 MB.

Non Heap Memory used 58.32 MB of 59.27 MB Committed Non Heap Memory. Max Non Heap Memory is -1 B.

Configured Capacity:	17.11 GB
DFS Used:	42.19 MB
Non DFS Used:	11.71 GB
DFS Remaining:	5.36 GB
DFS Used%:	0.24%
DFS Remaining%:	31.33%
Block Pool Used:	42.19 MB
Block Pool Used%:	0.24%
DataNodes usages% (Min/Median/Max/stdDev):	0.24% / 0.24% / 0.24% / 0.00%
Live Nodes	1 (Decommissioned: 0)
Dead Nodes	0 (Decommissioned: 0)
Decommissioning Nodes	0

Number of Under-Replicated Blocks	4
Number of Blocks Pending Deletion	0
Block Deletion Start Time	3/25/2018, 3:55:16 PM

NameNode Journal Status

Current transaction ID: 2602

Journal Manager	State
FileJournalManager(root=/home/acadgild/install/data/dfs/name)	EditLogOutputStream(/home/acadgild/install/data/dfs/name/current/edits_inprogress_00000000000000002602)

NameNode Storage

Storage Directory	Type	State
/home/acadgild/install/data/dfs/name	IMAGE_AND_EDITS	Active

localhost:50070/explorer.html#/
Search
Hadoop Overview Datanodes Snapshot Startup Progress Utilities

Browse Directory

/
Go!

Permission	Owner	Group	Size	Replication	Block Size	Name
drwxr-xr-x	acadgild	supergroup	0 B	0	0 B	hadoopdata
drwxr-xr-x	acadgild	supergroup	0 B	0	0 B	hdfs
drwxr-xr-x	acadgild	supergroup	0 B	0	0 B	sqoopout111
drwxrwx---	acadgild	supergroup	0 B	0	0 B	tmp
drwxr-xr-x	acadgild	supergroup	0 B	0	0 B	user

Hadoop, 2016.