

1) Start Hadoop single node on AcadGild VM. The command is *start-all.sh* .

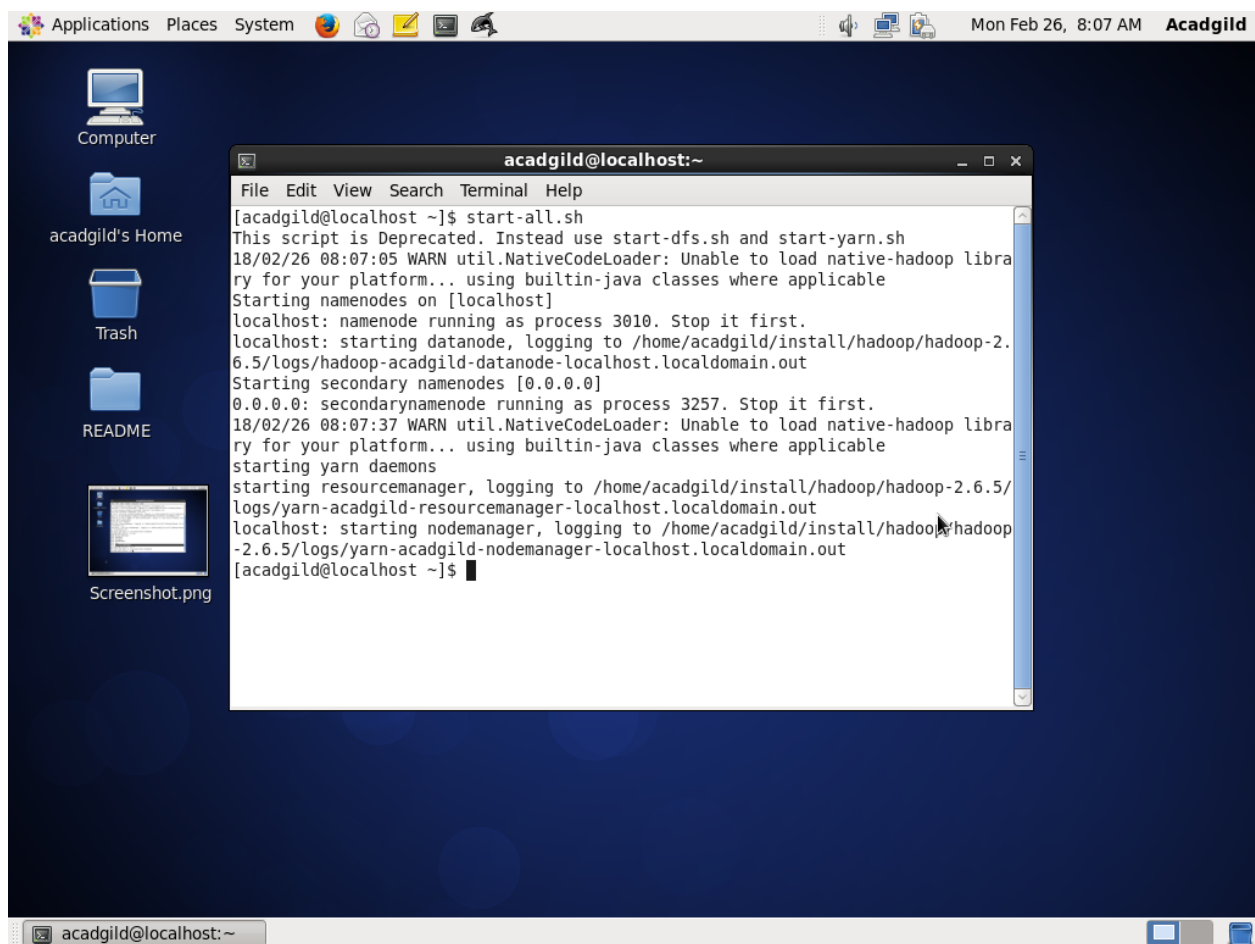
COMMAND:-

start-all.sh

EXPLANATION:-

Starts **all** Hadoop daemons, the namenode, datanodes, the jobtracker and tasktrackers.

OUTPUT:-



The screenshot shows a terminal window titled "acadgild@localhost:~" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal output is as follows:

```
[acadgild@localhost ~]$ start-all.sh
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh
18/02/26 08:07:05 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 3010. Stop it first.
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 3257. Stop it first.
18/02/26 08:07:37 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
[acadgild@localhost ~]$
```

The background of the terminal window shows a desktop environment with icons for "Computer", "acadgild's Home", "Trash", "README", and "Screenshot.png". The top of the window shows a system bar with "Applications", "Places", "System", and a clock showing "Mon Feb 26, 8:07 AM" next to the "Acadgild" logo.

2) Run a JPS command to see if all Hadoop daemons are running.

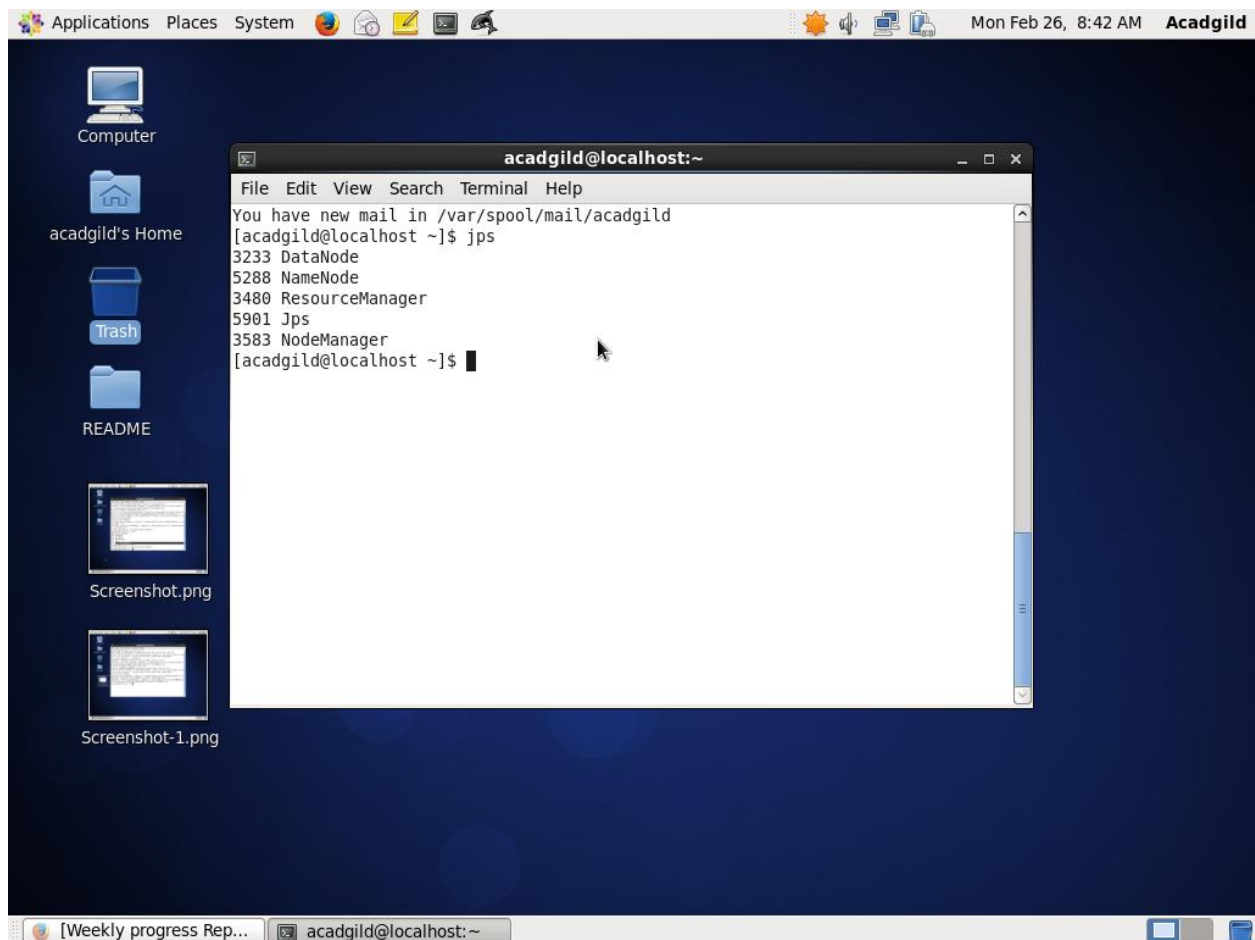
COMMAND:-

jps

EXPLANATION:-

jps command is used to check all the **Hadoop** daemons like NameNode, DataNode, ResourceManager, NodeManager etc. which are running on the machine.

OUTPUT:-



3) Run few Unix commands like *pwd*, *ls -ls* , etc.

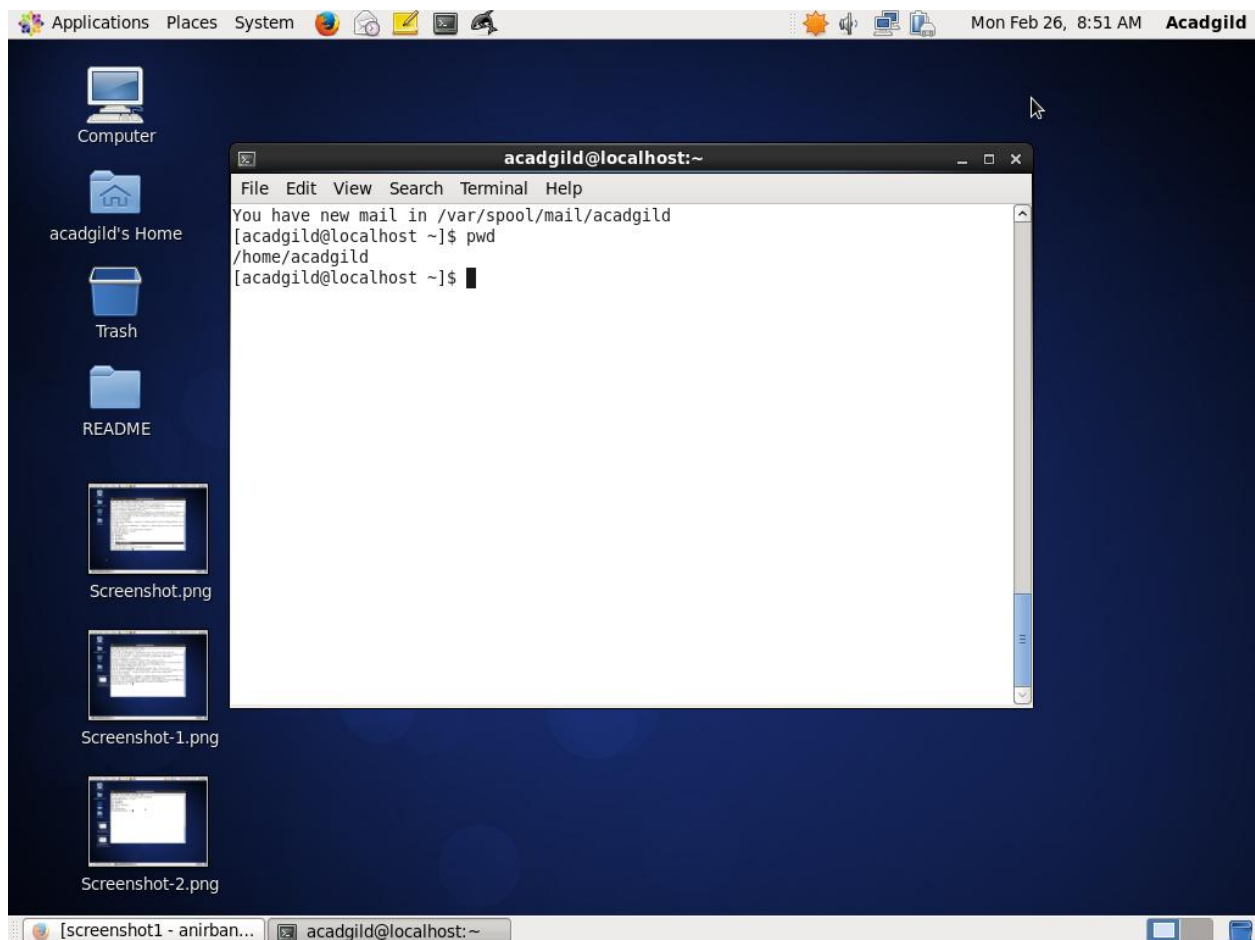
COMMAND:-

pwd

EXPLANATION:-

In **Unix**-like operating systems, the **pwd** command writes the full pathname of the current working directory to the standard output.

OUTPUT:-



COMMAND:-

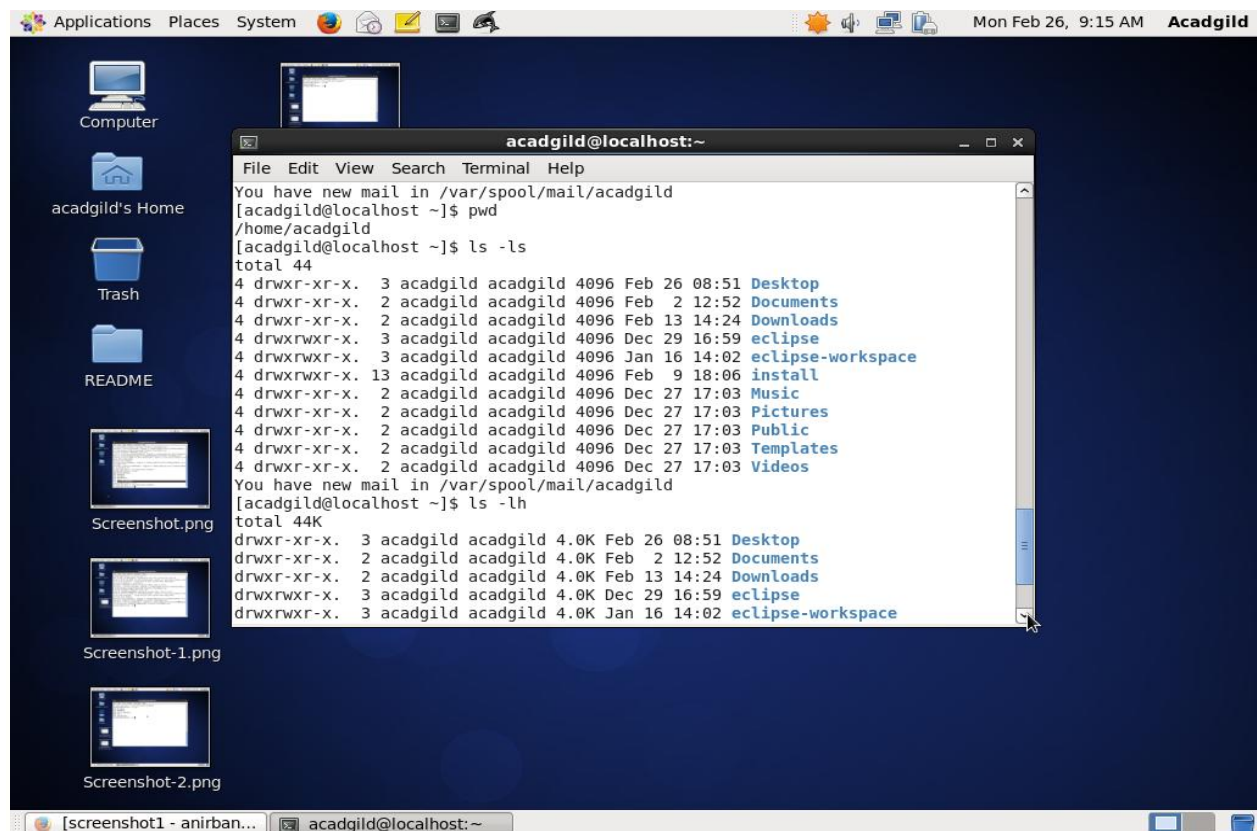
ls -lh, ls -ls, ls -r, ls -R, ls -s, ls -S, ls -t, ls -X etc.

EXPLANATION:-

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

ls -lh	list long format with readable file size
ls -ls	list with long format with file size
ls -r	list in reverse order
ls -R	list recursively directory tree
ls -s	list file size
ls -S	sort by file size
ls -t	sort by time & date
ls -X	sort by extension name

OUTPUT:-



4) Create a file from the terminal using nano editor (example: nano test.txt), and add some content in it. Cat it to see if the content is saved.

COMMAND:-

nano test.txt

EXPLANATION:-(i)here we create test.txt file.

(ii)then write some contents like:-"hello Acadgild".

(iii)then press ctrl+x.

(iv) then press Y.

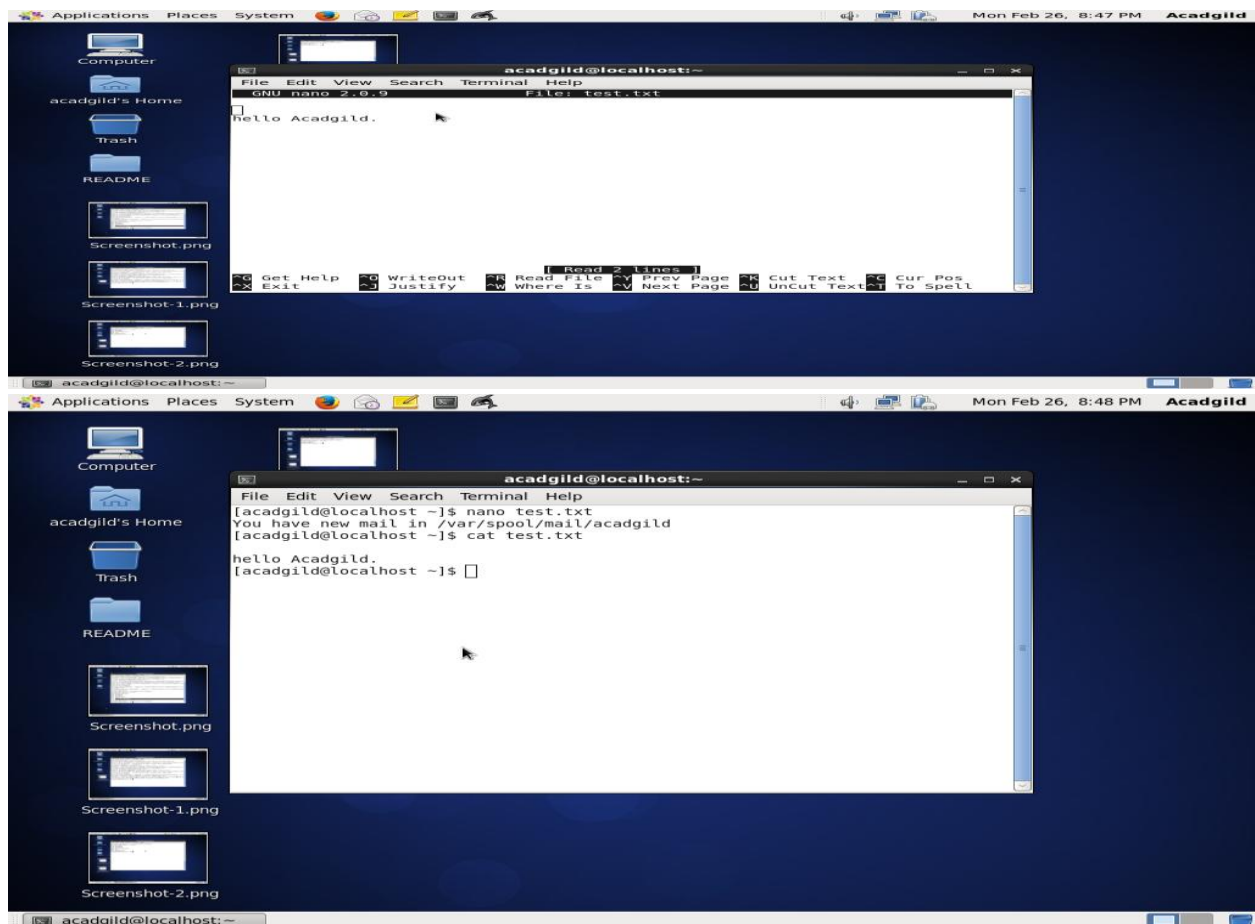
(v) then press Enter(↵)

content saved in test.txt.

show the content of the test.txt by ,

cat test.txt

OUTPUT:-



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

COMMAND:-

localhost:50070

note:-after starting the server ,i.e:-start-all.sh,type "localhost:50070" at the browser Url.

EXPLANATION:-

The **Hadoop** Distributed File System (**HDFS**) is designed to store very large data sets reliably, and to stream those data sets at high bandwidth to user applications. In a large cluster, thousands of servers both host directly attached storage and execute user application tasks.

OUTPUT:-

The top screenshot shows the 'Overview' page for 'localhost:8020' (active). It includes a table with the following information:

Started:	Mon Feb 26 21:14:22 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

Below the table is a 'Summary' section stating: 'Security is off.', 'Safemode is off.', and '26 files and directories, 3 blocks = 29 total filesystem object(s).'

The bottom screenshot shows the 'Summary' page for 'localhost:50070'. It displays the same summary text and a table with capacity and usage statistics:

Configured Capacity:	17.11 GB
DFS Used:	200 KB
Non DFS Used:	11.74 GB
DFS Remaining:	5.37 GB
DFS Used%:	0%
DFS Remaining%:	31.39%
Block Pool Used:	200 KB
Block Pool Used%:	0%
DataNodes usages% (Min/Median/Max/stdDev):	0.00% / 0.00% / 0.00% / 0.00%
Live Nodes	1 (Decommissioned: 0)

Applications Places System Mon Feb 26, 9:24 PM Acadgild

Namenode information - Mozilla Firefox

localhost:50070/dfshealth.html#tab-overview

Live Nodes 1 (Decommissioned: 0)

Dead Nodes 0 (Decommissioned: 0)

Decommissioning Nodes 0

Number of Under-Replicated Blocks 0

Number of Blocks Pending Deletion 0

Block Deletion Start Time 2/26/2018, 9:14:22 PM

NameNode Journal Status

Current transaction ID: 340

Journal Manager	State
FileJournalManager(root=/home/acadgild/install/data/dfs/name)	EditLogFileOutputStream(/home/acadgild/install/data/dfs/name/current/edits_inprogress_0000000000000000340)

NameNode Storage

[acadgild@localhost: ~] Namenode informatio... [acadgild@localhost: ~] [Screenshot-1.png]

Applications Places System Mon Feb 26, 9:25 PM Acadgild

Namenode information - Mozilla Firefox

localhost:50070/dfshealth.html#tab-overview

Number of Under-Replicated Blocks 0

Number of Blocks Pending Deletion 0

Block Deletion Start Time 2/26/2018, 9:14:22 PM

NameNode Journal Status

Current transaction ID: 340

Journal Manager	State
FileJournalManager(root=/home/acadgild/install/data/dfs/name)	EditLogFileOutputStream(/home/acadgild/install/data/dfs/name/current/edits_inprogress_0000000000000000340)

NameNode Storage

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

Screenshot-2.png

[acadgild@localhost: ~] Namenode informatio... [acadgild@localhost: ~] [Screenshot-1.png]