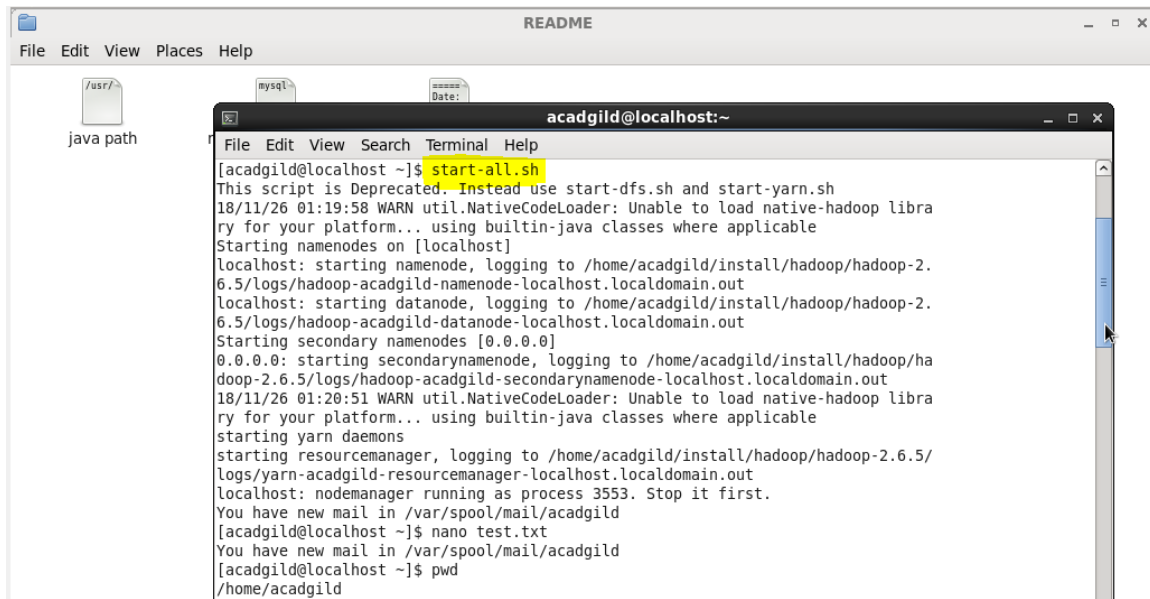


# Tasks:

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

The start-all.sh command starts all the Hadoop daemons, the namenode, datanodes, the jobtracker and tasktrackers.



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
18/11/26 01:19:58 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: starting secondarynamenode, logging to /home/acadgild/install/hadoop/ha
dooop-2.6.5/logs/hadoop-acadgild-secondarynamenode-localhost.localdomain.out
18/11/26 01:20:51 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: nodemanager running as process 3553. Stop it first.
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ nano test.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ pwd
/home/acadgild
```

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

JPS (Java Virtual Machine Process Status Tool) is a command is used to check all the Hadoop daemons like NameNode, DataNode, ResourceManager, NodeManager etc. which are running on the machine

```
acadmild@localhost:~$ ls -la
drwx----- 4 acadmild acadmild 4096 Nov 26 01:14 .gconf
-rw-rw-r-- 1 acadmild acadmild 152 Nov 26 01:14 .gtk-bookmarks
-rw-rw-r-- 1 acadmild acadmild 641 Nov 26 01:15 .imsettings.log
-rw----- 1 acadmild acadmild 2320 Nov 26 01:20 .xsession-errors
-rw-rw-r-- 1 acadmild acadmild 21 Nov 26 01:24 test.txt
drwx----- 39 acadmild acadmild 4096 Nov 26 01:24 .

acadmild@localhost ~$ start-all.sh
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh
18/11/26 01:32:09 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 3271. Stop it first.
localhost: datanode running as process 3368. Stop it first.
Starting secondary namenodes [0.0.0.0]
0.0.0.0: secondarynamenode running as process 3530. Stop it first.
18/11/26 01:32:34 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 3708. Stop it first.
localhost: nodemanager running as process 3553. Stop it first.
You have new mail in /var/spool/mail/acadmild
acadmild@localhost ~$ jps
5221 Jps
3271 NameNode
3368 DataNode
3530 SecondaryNameNode
3708 ResourceManager
You have new mail in /var/spool/mail/acadmild
acadmild@localhost ~$ r
```

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

Commands used:

- a) **pwd**: It prints the present working directory or the directory user currently is at present.
  - b) **date**: It displays the sytem date and time.
  - c) **who**: It displays the list of users who are currently logged into the machine.
  - d) **whoami** : it prints the current effective user ID.
  - e) **cd ..** : cd stands for change directory while the **cd ..** variation take to the parent directory.
  - f) **echo** : To display the text on to the standard output or a file.
  - g) **man** : This provides the manual or the help text for any command
  - head**: This provides the beginning of the text
  - h) **uname** : Ptrovides the info on the current machine and the OS running on it
  - i) **ls** : this is list command which lists directory content of files and directories.
- ls-lart** will list all(including hidden) the files in the long format reverse sorted on time and date

```
acadgild@localhost:~/
File Edit View Search Terminal Help
[acadgild@localhost home]$ pwd
/home
[acadgild@localhost home]$ date
Mon Nov 26 01:44:50 IST 2018
[acadgild@localhost home]$ who
acadgild tty1      2018-11-26 01:14 (:0)
acadgild pts/0    2018-11-26 01:17 (:0.0)
[acadgild@localhost home]$ whoami
acadgild
[acadgild@localhost home]$ cd ..
[acadgild@localhost /]$ echo " Hello Acadgild "
Hello Acadgild
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost /]$ man tar | head -3
TAR(1)                                User Commands                                TAR(1)

You have new mail in /var/spool/mail/acadgild
[acadgild@localhost /]$ uname
Linux
[acadgild@localhost /]$ ls -lart | head -6
total 114
drwxr-xr-x.  2 root root  4096 Sep 23  2011 srv
drwxr-xr-x.  2 root root  4096 Sep 23  2011 mnt
drwxr-xr-x.  2 root root  4096 Sep 23  2011 media
-rw-r--r--.  1 root root   297 Nov 10  2016 copyright
drwxr-xr-x. 14 root root  4096 Nov 26  2017 usr
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost /]$
```

**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.**

The nano command will open the nano editor and I created a file called task4.txt with it. Then closed the editor with CTRL+X key combination. Pressed Y for saving the file.

The cat command reads the data from a file and gives the content as the output.

```
acadgild@localhost: /
File Edit View Search Terminal Help
[acadgild@localhost /]$ sudo nano Task4.txt
[acadgild@localhost /]$ ls -lart | tail -10
drwxr-xr-x.  7 root root    0 Nov 26 01:12 selinux
drwxr-xr-x. 20 root root  3560 Nov 26 01:13 dev
drwxr-xr-x.119 root root 12288 Nov 26 01:30 etc
drwxrwxrwt. 54 root root  4096 Nov 26 01:48 tmp
-rw-r--r--.  1 root root    37 Nov 26 02:01 Task4.txt
dr-xr-xr-x. 25 root root  4096 Nov 26 02:01 ..
dr-xr-xr-x. 25 root root  4096 Nov 26 02:01 .
-rw-r--r--.  1 root root    0 Nov 26 2018 .autofsck
drwxr-xr-x.  2 root root    0 Nov 26 2018 misc
drwxr-xr-x.  2 root root    0 Nov 26 2018 net
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost /]$ cat Task4.txt | head -4
Hello World

Let's learn Big Data

[acadgild@localhost /]$
```

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

Using localhost:50070 we can see all the info related to cluster and its config.

Namenode information x +

localhost:50070/dfshealth.html#tab-overview

Security is off.  
Safemode is off.  
26 files and directories, 3 blocks = 29 total filesystem object(s).  
Heap Memory used 34.38 MB of 49.23 MB Heap Memory. Max Heap Memory is 966.69 MB.  
Non Heap Memory used 40.21 MB of 40.81 MB Committed Non Heap Memory. Max Non Heap Memory is -1 B.

Configured Capacity:	17.11 GB
DFS Used:	200 KB
Non DFS Used:	11.16 GB
DFS Remaining:	5.95 GB
DFS Used%:	0%
DFS Remaining%:	34.79%
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)