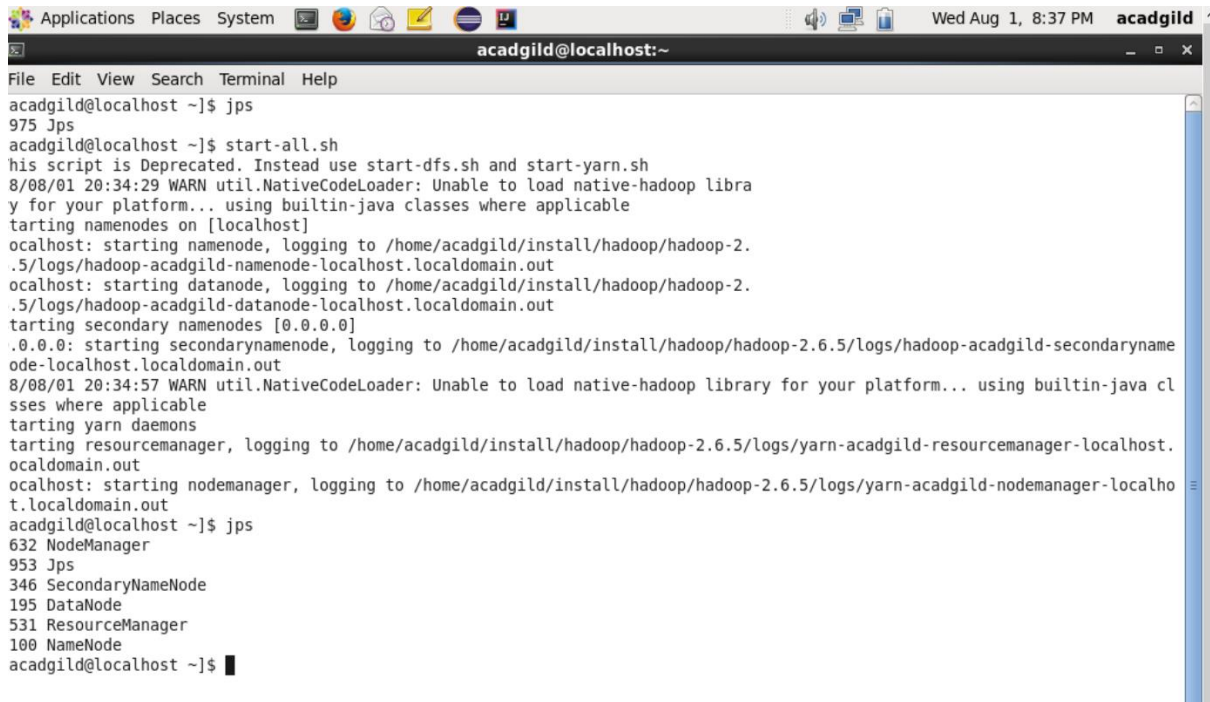


Assignment Submission- Session 1

- 1.) Start Hadoop Single Node.
- 2.) Run jps command to see if all Hadoop daemons are running.

A screenshot of a Linux terminal window titled 'acadgild@localhost:~'. The terminal shows the execution of 'start-all.sh' and 'jps' commands. The 'start-all.sh' command outputs a deprecation warning and logs the starting of namenode, datanode, secondary namenode, and yarn daemons. The 'jps' command outputs the following process list:

```
acacgild@localhost ~]$ jps
975 Jps
acacgild@localhost ~]$ start-all.sh
his script is Deprecated. Instead use start-dfs.sh and start-yarn.sh
8/08/01 20:34:29 WARN util.NativeCodeLoader: Unable to load native-hadoop libra
y for your platform... using builtin-java classes where applicable
tarning namenodes on [localhost]
ocalhost: starting namenode, logging to /home/acacgild/install/hadoop/hadoop-2.
.5/logs/hadoop-acacgild-namenode-localhost.localdomain.out
ocalhost: starting datanode, logging to /home/acacgild/install/hadoop/hadoop-2.
.5/logs/hadoop-acacgild-datanode-localhost.localdomain.out
tarning secondary namenodes [0.0.0.0]
.0.0.0: starting secondarynamenode, logging to /home/acacgild/install/hadoop/hadoop-2.6.5/logs/hadoop-acacgild-secondaryname
ode-localhost.localdomain.out
8/08/01 20:34:57 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
sses where applicable
tarning yarn daemons
tarning resourcemanager, logging to /home/acacgild/install/hadoop/hadoop-2.6.5/logs/yarn-acacgild-resourcemanager-localhost.
ocaldomain.out
ocalhost: starting nodemanager, logging to /home/acacgild/install/hadoop/hadoop-2.6.5/logs/yarn-acacgild-nodemanager-localho
t.localdomain.out
acacgild@localhost ~]$ jps
632 ResourceManager
953 Jps
346 SecondaryNameNode
195 DataNode
531 ResourceManager
100 NameNode
acacgild@localhost ~]$
```

JPS gives current "Java Process Status"

After running command "start-all.sh". The Hadoop daemons got started. The above screenshot shows processes started along with their process ids.

"Resource manager" and "NameNode" are the master daemons, where as "Secondary NameNode" is kind of assistant manager to "NameNode" which keeps track of "fsImage/namespace image" file of the "NameNode" and updates the same with "edits" and provide it back to the "NameNode". It keeps latest copy of "namespace file".

"Node Manager" and "Data Node" are the slave daemons that run on all the machines in the cluster, where actual data storage and processing happens on the HDFS cluster.

3.) Run a few unix commands like pwd, ls etc.

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ pwd  
/home/acadgild  
[acadgild@localhost ~]$ ls -l  
total 72  
-rw-rw-r--. 1 acadgild acadgild 75 Jul 26 11:32 aks_test  
-rw-rw-r--. 1 acadgild acadgild 75 Jul 26 11:31 aks_test~  
-rw-r--r--. 1 acadgild acadgild 75 Jul 26 11:48 aks_test.txt  
drwxr-xr-x. 3 acadgild acadgild 4096 May 15 17:57 Desktop  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Documents  
drwxr-xr-x. 4 acadgild acadgild 4096 May 16 17:15 Downloads  
drwxrwxr-x. 3 acadgild acadgild 4096 May 15 16:13 eclipse  
drwxrwxr-x. 3 acadgild acadgild 4096 May 15 16:16 eclipse-workspace  
drwxrwxr-x. 3 acadgild acadgild 4096 May 16 17:24 IdeaProjects  
drwxrwxr-x. 13 acadgild acadgild 4096 May 16 13:33 install  
drwxrwxr-x. 8 acadgild acadgild 4096 May 16 17:16 IntelliJ  
drwxrwxr-x. 5 acadgild acadgild 4096 May 16 13:41 metastore_db  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Music  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Pictures  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Public  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Templates  
-rw-rw-r--. 1 acadgild acadgild 2435 May 22 13:36 tweets  
drwxr-xr-x. 2 acadgild acadgild 4096 May 14 14:05 Videos  
[acadgild@localhost ~]$ hadoop fs -ls /  
18/08/01 20:54:18 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl  
asses where applicable  
Found 3 items  
-rw-r--r-- 1 acadgild supergroup 75 2018-07-26 11:38 /aks test.txt  
drwxr-xr-x - acadgild supergroup 0 2018-05-16 13:49 /hbase  
drwx-wx-wx - acadgild supergroup 0 2018-05-16 13:42 /tmp  
[acadgild@localhost ~]$
```

→ “pwd” shows present working directory.

→ “ls -l” lists all the files/sub directories present in the pwd along with details. It doesn’t show hidden files/directories. (ls -la can be used to see all)

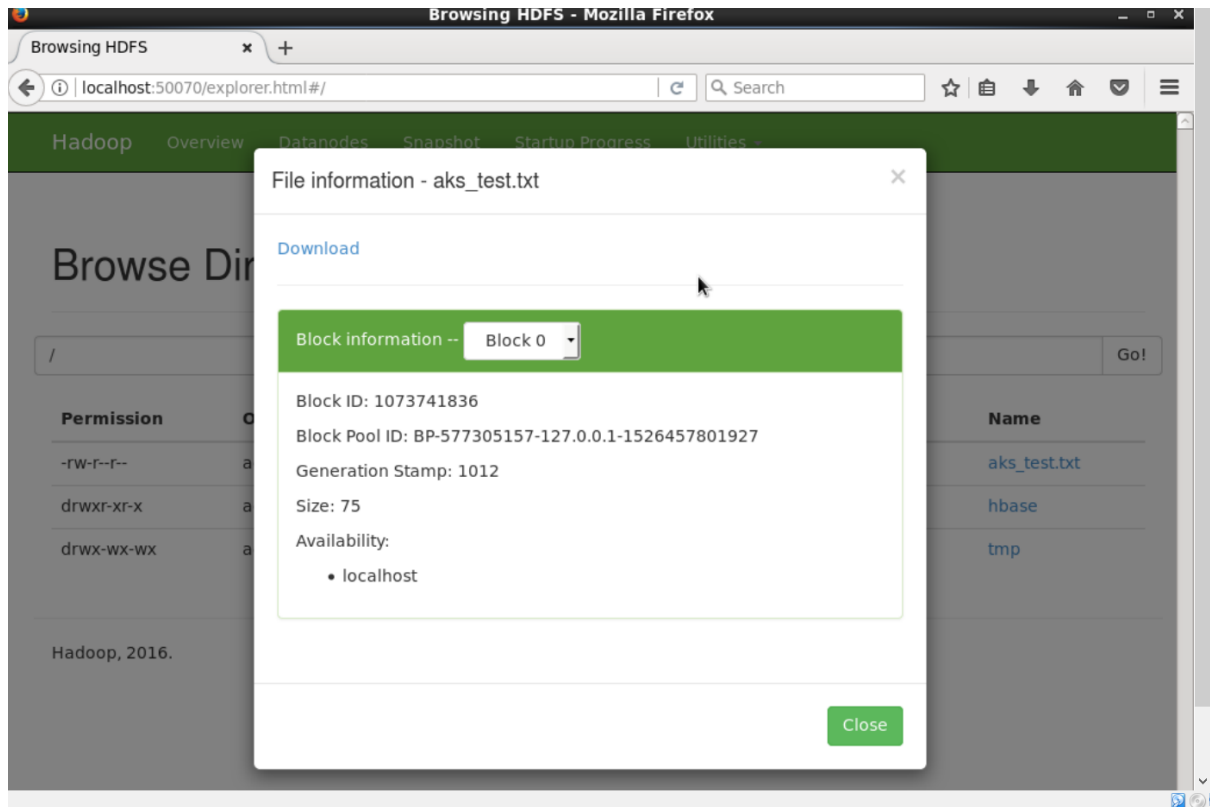
- -rw*** signifies it’s a file, not a directory, drw-*** signifies it’s a directory. Also signifies access user has on files (read/write).

→ “hadoop fs -ls” shows all the files/directories present in the hdfs.

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.

```
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ pwd  
/home/acadgild  
[acadgild@localhost ~]$ mkdir akshat_dir  
[acadgild@localhost ~]$ cd akshat_dir  
[acadgild@localhost akshat_dir]$ pwd  
/home/acadgild/akshat_dir  
[acadgild@localhost akshat_dir]$ nano assignment_1.txt  
[acadgild@localhost akshat_dir]$ pwd  
/home/acadgild/akshat_dir  
[acadgild@localhost akshat_dir]$ ls -la  
total 12  
drwxrwxr-x. 2 acadgild acadgild 4096 Aug 1 21:17 .  
drwx----- 49 acadgild acadgild 4096 Aug 1 21:09 ..  
-rw-rw-r--. 1 acadgild acadgild 76 Aug 1 21:17 assignment_1.txt  
[acadgild@localhost akshat_dir]$ cat assignment_1.txt  
This is my first created file using a nano editor. Credted for assignment 1.  
[acadgild@localhost akshat_dir]$
```

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



Block information of the file moved to hdfs.