

Assignment Submission- Session 2

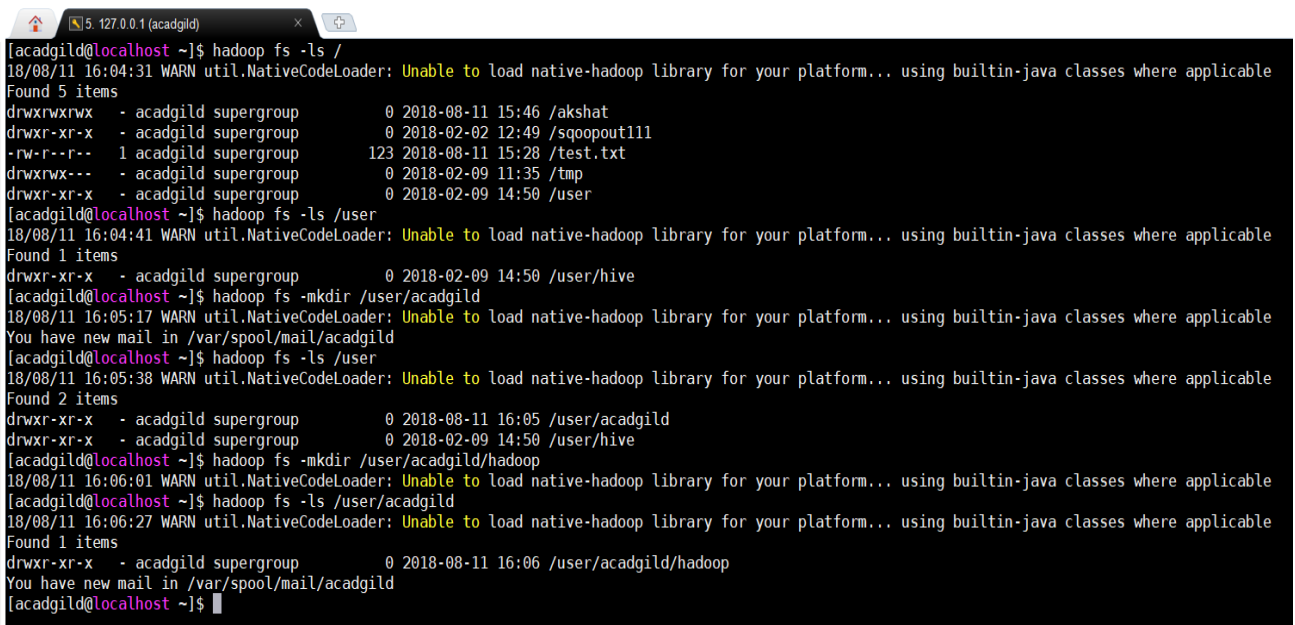
Task 1:

Check whether /user/acadgild directory exists or not in the HDFS.

If it doesn't exist, then create this. Create a directory /user/acadgild/hadoop.

Solution: user directory existed. Create a directory acadgild inside it and hadoop directory inside acadgild directory.

Refer below screenshot.



```
[acadgild@localhost ~]$ hadoop fs -ls /
18/08/11 16:04:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 5 items
drwxrwxrwx - acadgild supergroup          0 2018-08-11 15:46 /akshat
drwxr-xr-x - acadgild supergroup          0 2018-02-02 12:49 /sgoopout111
-rw-r--r-- 1 acadgild supergroup        123 2018-08-11 15:28 /test.txt
drwxrwx--- - acadgild supergroup          0 2018-02-09 11:35 /tmp
drwxr-xr-x - acadgild supergroup          0 2018-02-09 14:50 /user
[acadgild@localhost ~]$ hadoop fs -ls /user
18/08/11 16:04:41 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 1 items
drwxr-xr-x - acadgild supergroup          0 2018-02-09 14:50 /user/hive
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild
18/08/11 16:05:17 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user
18/08/11 16:05:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
drwxr-xr-x - acadgild supergroup          0 2018-08-11 16:05 /user/acadgild
drwxr-xr-x - acadgild supergroup          0 2018-02-09 14:50 /user/hive
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop
18/08/11 16:06:01 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild
18/08/11 16:06:27 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 1 items
drwxr-xr-x - acadgild supergroup          0 2018-08-11 16:06 /user/acadgild/hadoop
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
```

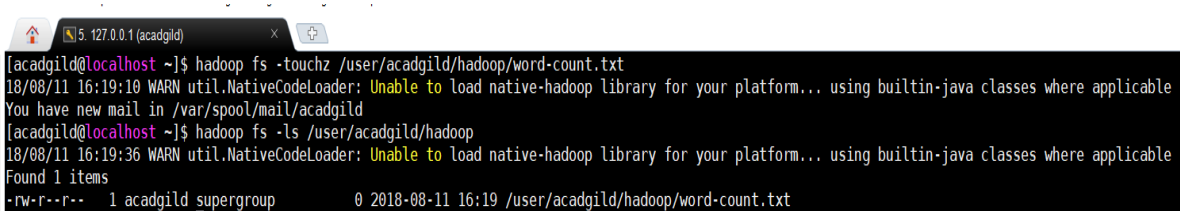
Task 2:

Create a file in HDFS under directory /user/acadgild/hadoop, with name word-count.txt.

Whatever we type on screen should get appended to the file.

Try to type (on screen) few lines from any online article or textbook.

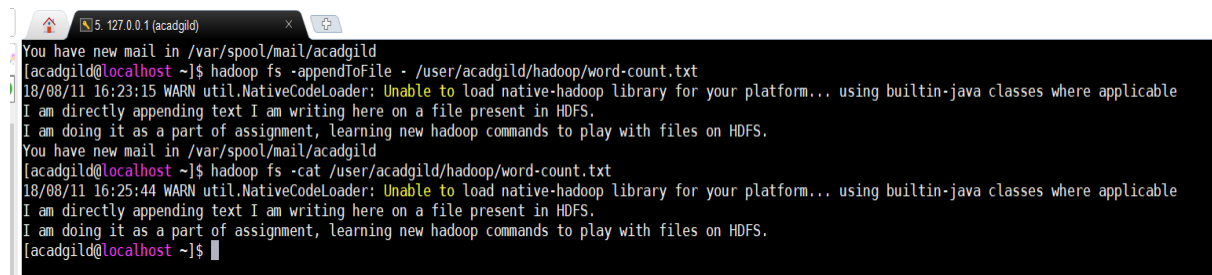
Solution: Created a new file of zero size on HDFS using -touchz command. Refer screenshot.



```
[acadgild@localhost ~]$ hadoop fs -touchz /user/acadgild/hadoop/word-count.txt
18/08/11 16:19:19 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop
18/08/11 16:19:36 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 1 items
-rw-r--r-- 1 acadgild supergroup          0 2018-08-11 16:19 /user/acadgild/hadoop/word-count.txt
```

Edited the file created by using -appendToFile. Used “-” in place where “full path of file from where content is to be copied” and typing the text to be appended on terminal.

Later saving it using Ctrl + D. Refer screenshot



```
5. 127.0.0.1 (acadgild) x
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt
18/08/11 16:23:15 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
I am directly appending text I am writing here on a file present in HDFS.
I am doing it as a part of assignment, learning new hadoop commands to play with files on HDFS.
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/08/11 16:25:44 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
I am directly appending text I am writing here on a file present in HDFS.
I am doing it as a part of assignment, learning new hadoop commands to play with files on HDFS.
[acadgild@localhost ~]$
```

Task 3:

Create a file max-temp.txt in local FS.

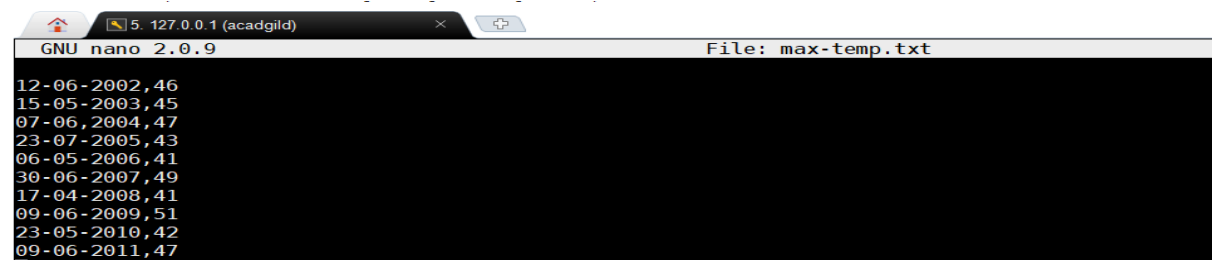
Put some 10-15 records of date and temperature example:

dd-mm-yyyy,temperature

Move this file to HDFS at /user/acadgild/hadoop.

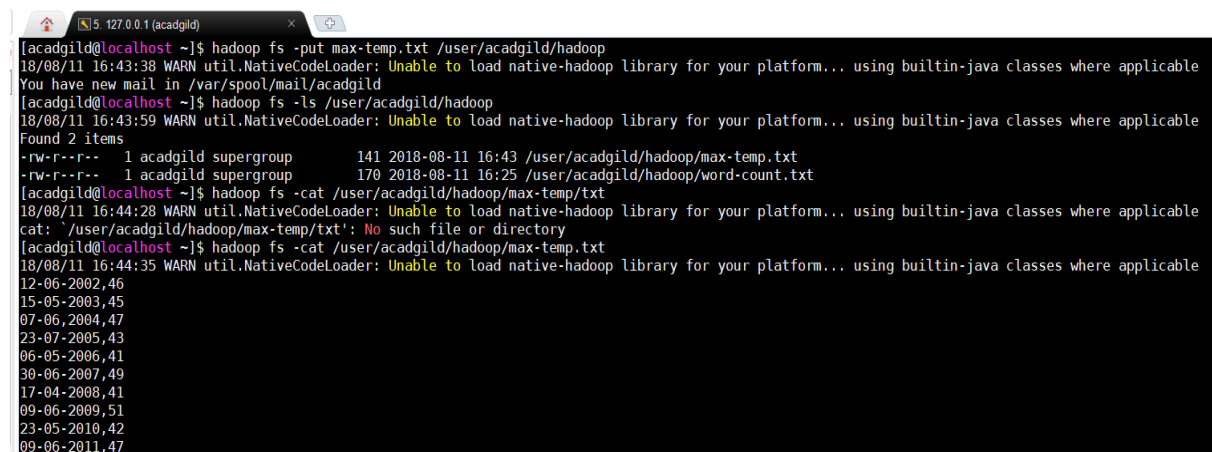
Solution: Created a new file on local using nano max-temp.txt. Added content, ctrl + O, to save.

Ctrl + X to return to terminal.



```
GNU nano 2.0.9 File: max-temp.txt
12-06-2002,46
15-05-2003,45
07-06-2004,47
23-07-2005,43
06-05-2006,41
30-06-2007,49
17-04-2008,41
09-06-2009,51
23-05-2010,42
09-06-2011,47
```

Moved file to hdfs at desired location using -put command.



```
5. 127.0.0.1 (acadgild) x
[acadgild@localhost ~]$ hadoop fs -put max-temp.txt /user/acadgild/hadoop
18/08/11 16:43:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop
18/08/11 16:43:59 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-r--r-- 1 acadgild supergroup 141 2018-08-11 16:43 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 170 2018-08-11 16:25 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/max-temp.txt
18/08/11 16:44:28 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
cat: /user/acadgild/hadoop/max-temp.txt: No such file or directory
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/max-temp.txt
18/08/11 16:44:35 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
12-06-2002,46
15-05-2003,45
07-06-2004,47
23-07-2005,43
06-05-2006,41
30-06-2007,49
17-04-2008,41
09-06-2009,51
23-05-2010,42
09-06-2011,47
```

Task 4:

Change the permission of the file `/user/acadgild/hadoop/max-temp.txt`, such that only the owner and the group members have full control over the file.

Solution: Checking current access on the file and getting user/owner, group stats about the file.

```
5. 127.0.0.1 (acadgild) x
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop
18/08/11 16:59:11 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-r--r-- 1 acadgild supergroup 141 2018-08-11 16:43 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 170 2018-08-11 16:25 /user/acadgild/hadoop/word-count.txt
```

Currently owner has read write access, group has read access and public has read access.

```
5. 127.0.0.1 (acadgild) x
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -stat type:%u /user/acadgild/hadoop/max-temp.txt
18/08/11 17:02:13 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
type:acadgild
[acadgild@localhost ~]$ hadoop fs -stat type:%g /user/acadgild/hadoop/max-temp.txt
18/08/11 17:02:22 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
type:supergroup
[acadgild@localhost ~]$
```

The owner of the file is acadgild and the group to which file belongs is supergroup. (checked by `-stat type:%u` and `type:%g` flags)

Giving group write access using `-chmod g+w` command.

```
[acadgild@localhost ~]$ hadoop fs -chmod g+w /user/acadgild/hadoop/max-temp.txt
18/08/11 17:08:29 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop
18/08/11 17:08:36 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-rw-r-- 1 acadgild supergroup 141 2018-08-11 16:43 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 170 2018-08-11 16:25 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$
```

Adding execute access as well to the group.

```
[acadgild@localhost ~]$ hadoop fs -chmod g+x /user/acadgild/hadoop/max-temp.txt
18/08/11 17:10:35 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop
18/08/11 17:10:40 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 2 items
-rw-rwxr-- 1 acadgild supergroup 141 2018-08-11 16:43 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 170 2018-08-11 16:25 /user/acadgild/hadoop/word-count.txt
```

Alternatively, we could have used: `Hadoop fs -chmod g+wx /user/acadgild/Hadoop/max-temp.txt`.