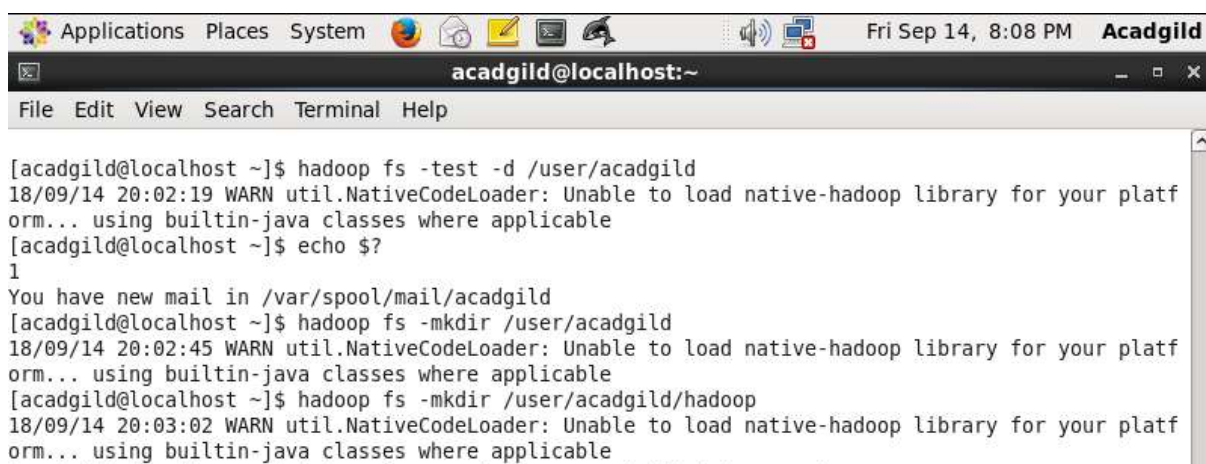


Assignment-1

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.



The screenshot shows a terminal window titled 'acadgild@localhost:~'. The window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal output shows the following commands and their results:

```
[acadgild@localhost ~]$ hadoop fs -test -d /user/acadgild
18/09/14 20:02:19 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
orm... using builtin-java classes where applicable
[acadgild@localhost ~]$ echo $?
1
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild
18/09/14 20:02:45 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
orm... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop
18/09/14 20:03:02 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
orm... using builtin-java classes where applicable
```

Solution: Verified the existence of a folder using `-test -d` command and observed that folder does not exist.

`-test -d` returns 1 if directory does not exist. Hence we created first /acadgild under /user and then /Hadoop under /user/acadgild.

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.

```
[acadgild@localhost ~]$ echo "Welcome to BigData" | hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt
18/09/14 20:19:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/09/14 20:19:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Welcome to BigData
[acadgild@localhost ~]$ echo "This is the second assignment of HDFS Introduction" | hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt
18/09/14 20:20:09 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 -cat /user/acadgild/hadoop/word-count.txt
18/09/14 20:20:17 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Welcome to BigData
This is the second assignment of HDFS Introduction
[acadgild@localhost ~]$
```

Solution:

Here we have to add the contents to file from input console. There is a command `-appendToFile` in Hadoop which will take input from console if we give '-' (Hyphen) as source directory.

In First instance, have given "Welcome to Big Data!!" and then "This is the second assignment of HDFS Introduction".

We can see that second time input is appended to file.

Note: `appendToFile` creates the file if does not exists. Hence there is no need of exclusively creating a new file.

Task 3:

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

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

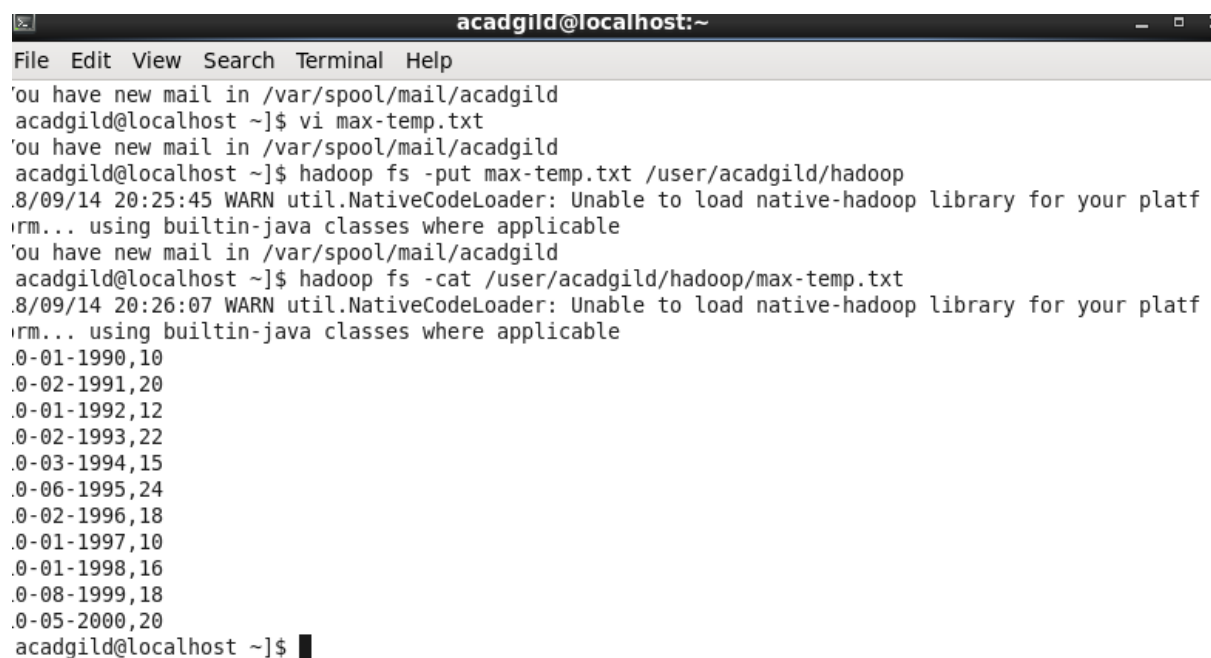
dd-mm-yyyy,temperature

Example:

10-01-1990,10

10-02-1991,20

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

A terminal window titled 'acadgild@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
'ou have new mail in /var/spool/mail/acadgild
acadgild@localhost ~]$ vi max-temp.txt
'ou have new mail in /var/spool/mail/acadgild
acadgild@localhost ~]$ hadoop fs -put max-temp.txt /user/acadgild/hadoop
8/09/14 20:25:45 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
rm... using builtin-java classes where applicable
'ou have new mail in /var/spool/mail/acadgild
acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/max-temp.txt
8/09/14 20:26:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platf
rm... using builtin-java classes where applicable
.0-01-1990,10
.0-02-1991,20
.0-01-1992,12
.0-02-1993,22
.0-03-1994,15
.0-06-1995,24
.0-02-1996,18
.0-01-1997,10
.0-01-1998,16
.0-08-1999,18
.0-05-2000,20
acadgild@localhost ~]$
```

Solution:

Created a file in local using VI editor and moved the file to HDFS using –put command.

We did cat on file moved to HDFS to see the contents that we entered in local.

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.
Others do not have any control over it.

```
[acadgild@localhost ~]$ hadoop fs -chmod 770 /user/acadgild/hadoop/max-temp.txt
18/09/14 20:28:42 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/max-temp.txt
18/09/14 20:30:27 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
-rwxrwx--- 1 acadgild supergroup      154 2018-09-14 20:25 /user/acadgild/hadoop/max-temp.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
```

Solution:

We can use chmod command with octal values 770 will restrict other users from doing kind of operations on file we created.

And it can be seen through the ls command on what permission are given to each group.