

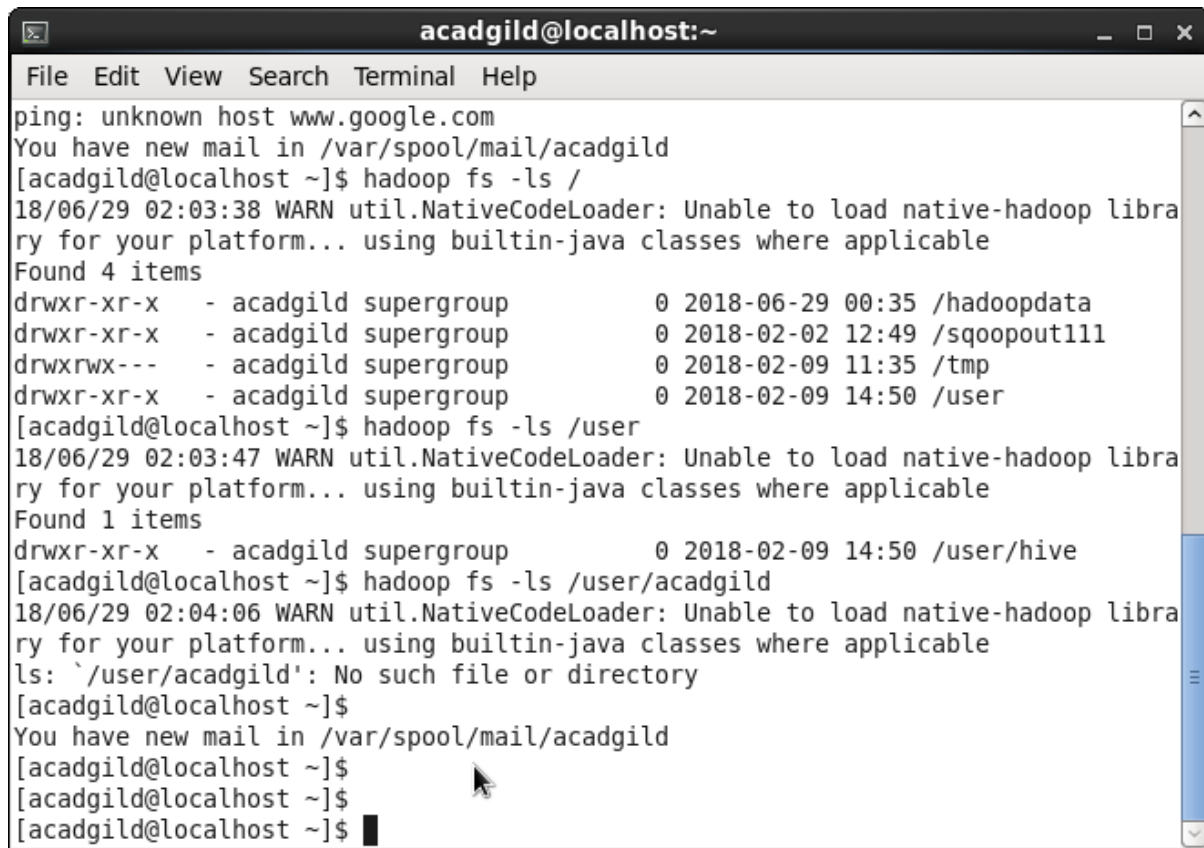
Assignment 2.1

Task 1

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

Ans: We will use **ls** command in Hadoop file system to check /user/acadgild is present or not.

Command: **Hadoop fs -ls /**

A screenshot of a terminal window titled 'acadgild@localhost:~'. The terminal shows the following commands and output:

```
ping: unknown host www.google.com
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /
18/06/29 02:03:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 4 items
drwxr-xr-x - acadgild supergroup          0 2018-06-29 00:35 /hadoopdata
drwxr-xr-x - acadgild supergroup          0 2018-02-02 12:49 /sqoopout111
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
18/06/29 02:03:47 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 -ls /user/acadgild
18/06/29 02:04:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
ls: '/user/acadgild': No such file or directory
[acadgild@localhost ~]$
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
```

It is not present in Hadoop file system. So, we create the directory in the Hadoop file system.

Commands:

- **Hadoop fs -mkdir /user/acadgild**
- **Hadoop fs -mkdir /user/acadgild/hadoop**

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop  
18/06/29 02:08:03 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
mkdir: `/user/acadgild/hadoop': No such file or directory  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild  
18/06/29 02:08:24 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop  
18/06/29 02:08:36 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  
18/06/29 02:08:59 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 2018-06-29 02:08 /user/acadgild/hadoop  
[acadgild@localhost ~]$  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$
```

Task 2

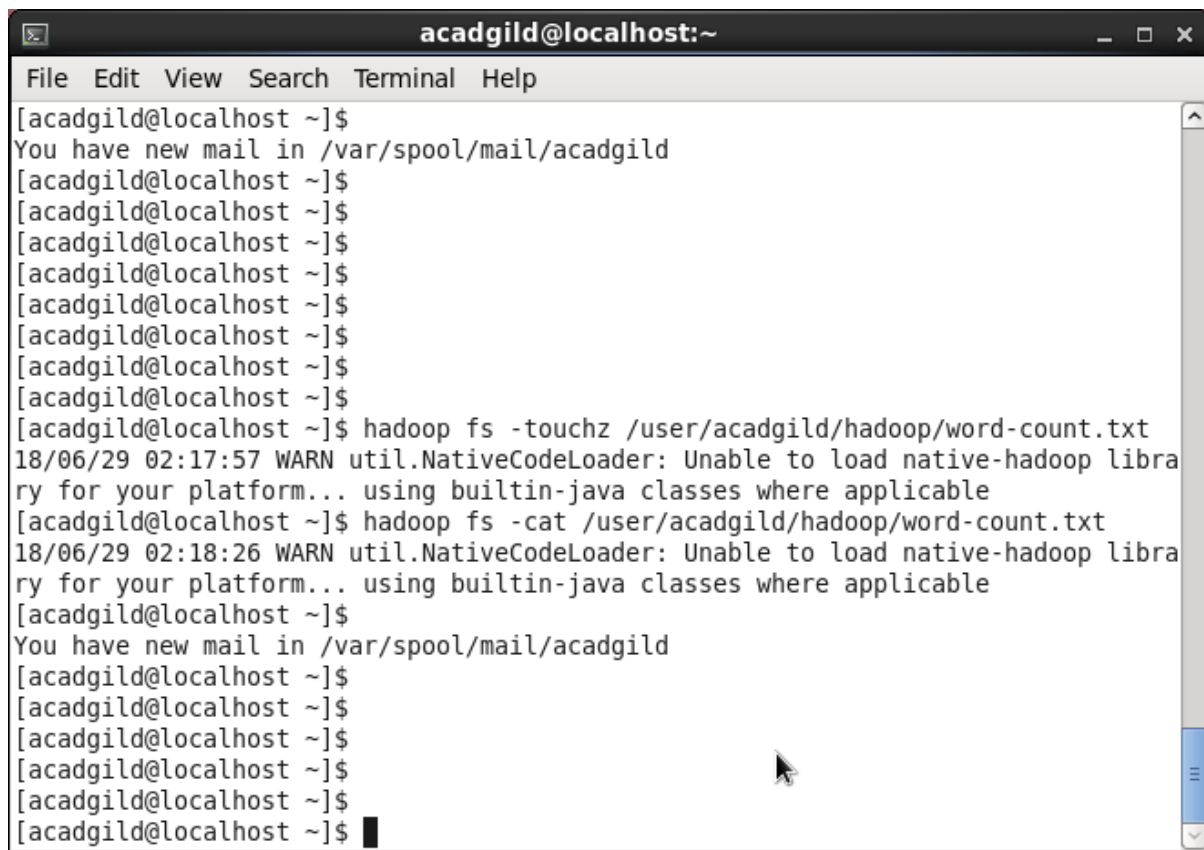
Create a file in HDFS under directory /user/acadgild/hadoop, with name word-count.txt.

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

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

Ans: We will use **touchz** command to create the word-count.txt file.

Command: ***Hadoop fs -touchz /user/acadgild/hadoop/word-count.txt***

A terminal window titled 'acadgild@localhost:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows a series of commands and their outputs. It starts with a prompt '[acadgild@localhost ~]\$', followed by a system message 'You have new mail in /var/spool/mail/acadgild'. Then, several empty prompts are shown. Next, the command 'hadoop fs -touchz /user/acadgild/hadoop/word-count.txt' is executed, resulting in a warning message: '18/06/29 02:17:57 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable'. This is followed by 'hadoop fs -cat /user/acadgild/hadoop/word-count.txt', which also shows the same warning. The terminal ends with several more empty prompts and a cursor at the end of the last line.

```
acadgild@localhost:~
File Edit View Search Terminal Help
[acadgild@localhost ~]$
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$ hadoop fs -touchz /user/acadgild/hadoop/word-count.txt
18/06/29 02:17:57 WARN util.NativeCodeLoader: Unable to load native-hadoop libra
ry for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/06/29 02:18:26 WARN util.NativeCodeLoader: Unable to load native-hadoop libra
ry for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
[acadgild@localhost ~]$
```

Whatever we type on screen should get appended to the file with use of **echo** and **appendToFile** command.

Command: **echo "Sentence" | hadoop fs -appendToFile /user/acadgild/hadoop/word-count.txt**

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ echo "hello everyone" | hadoop fs -appendToFile - /user/  
acadgild/hadoop/word-count.txt  
18/06/29 02:23:40 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry 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  
18/06/29 02:23:51 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
hello everyone  
[acadgild@localhost ~]$ echo "This is the word count file. we will make the prog  
ram to count the words in a file. we will use map reduce to do this task. This p  
rogram is the basic program to start the Hadoop. Hope Everything goes smooth." |  
hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt  
18/06/29 02:26:23 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry 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  
18/06/29 02:26:39 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
hello everyone  
This is the word count file. we will make the program to count the words in a fi  
le. we will use map reduce to do this task. This program is the basic program to  
start the Hadoop. Hope Everything goes smooth.  
[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

Example:

10-01-1990,10

10-02-1991,20

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

Ans: We have used **nano** command to create the file.

Command: **nano max-temp.txt**

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
hello everyone  
This is the word count file. we will make the program to count the words in a file. we will use map reduce to do this task. This program is the basic program to start the Hadoop. Hope Everything goes smooth.  
[acadgild@localhost ~]$  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$ nano max-temp.txt  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$
```

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
GNU nano 2.0.9 File: max-temp.txt  
10-01-1990,35  
20-01-1991,37  
10-01-1993,36  
10-01-1995,40  
11-01-1996,43  
10-01-1997,42  
20-01-1998,35  
10-01-1999,37  
10-01-2000,39  
10-01-2001,39  
10-01-2002,41  
10-01-2003,46  
[ Wrote 12 lines ]  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos  
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
[acadgild@localhost ~]$ nano max-temp.txt  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$ cat max-temp.txt  
10-01-1990,35  
20-01-1991,37  
10-01-1993,36  
10-01-1995,40  
11-01-1996,43  
10-01-1997,42  
20-01-1998,35  
10-01-1999,37  
10-01-2000,39  
10-01-2001,39  
10-01-2002,41  
10-01-2003,46  
[acadgild@localhost ~]$
```

To move the file to HDFS, we use **put** command.

Command: ***hadoop fs -put max-temp.txt /user/acadgild/hadoop***

```
acadgild@localhost:~  
File Edit View Search Terminal Help  
ry for your platform... using builtin-java classes where applicable  
mv: `max-temp.txt': No such file or directory  
[acadgild@localhost ~]$ hadoop fs -put max-temp.txt /user/acadgild/hadoop  
18/06/29 02:45:59 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
You have new mail in /var/spool/mail/acadgild  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$  
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop  
18/06/29 02:46:18 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
cat: `/user/acadgild/hadoop': Is a directory  
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop  
18/06/29 02:46:41 WARN util.NativeCodeLoader: Unable to load native-hadoop libra  
ry for your platform... using builtin-java classes where applicable  
Found 2 items  
-rw-r--r-- 1 acadgild supergroup 168 2018-06-29 02:46 /user/acadgild/ha  
dooop/max-temp.txt  
-rw-r--r-- 1 acadgild supergroup 223 2018-06-29 02:26 /user/acadgild/ha  
dooop/word-count.txt  
[acadgild@localhost ~]$
```

Change the permission of the file `/user/acadgild/hadoop/max-temp.txt`, such that only the owner and

Others do not have any control over it.

Command: ***hadoop fs -chmod -R 770 /user/acadgild/hadoop/max-temp.txt***

770 means all read, write and execute permissions given to Owner and group members only. Others don't have any permission.

[illegible]