

### 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.

```
[acadgild@localhost ~]$ hadoop fs -test -d /user/acadgild
18/11/26 04:17:22 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ if [ $? -eq 0 ] ; then echo "The directory already exists in HDFS" ; else hadoop fs -mkdir /user/aca
dgild ;fi
18/11/26 04:17:45 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ hadoop fs -test -d /user/acadgild
18/11/26 04:18:00 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ echo $?
0
[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop
18/11/26 04:18:50 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$
```

Solution : The first command validates the the presence of the directory .

The next command validates the ouput of previous command if its 0 then it means its already present and if not then we create the directory. After this we check that the output now changes to 0 and now our directory is present.

After this we create the hadoop folder.

### Task 2:

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

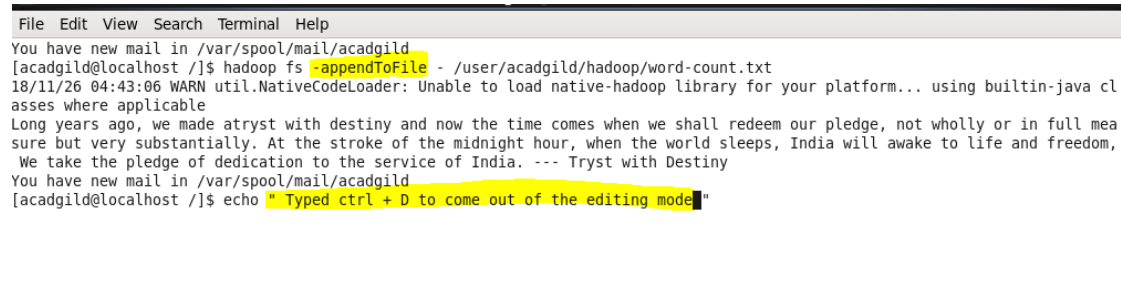
We have used the touchz command to create a 0 byte cord-count.txt file

```
[acadgild@localhost ~]$ hadoop fs -touchz /user/acadgild/hadoop/word-count.txt
18/11/26 04:32:17 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop/
18/11/26 04:32:51 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 1 items
-rw-r--r-- 1 acadgild supergroup 0 2018-11-26 04:32 /user/acadgild/hadoop/word-count.txt
```

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

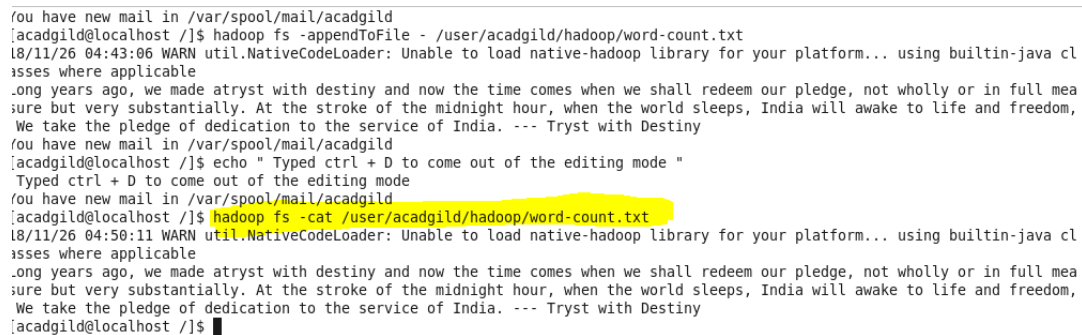
Try to type (on screen) few lines from any online article or textbook.

We used the `-appendToFile` command to add the text to the file. Used `Ctrl+D` to come out of editing mode.

A terminal window with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is [acadgild@localhost ~]. The user runs 'hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt'. A warning message appears: '18/11/26 04:43:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable'. The user enters a paragraph of text about India's independence. The prompt returns to [acadgild@localhost ~]. The user runs 'echo " Typed ctrl + D to come out of the editing mode "'.

```
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -appendToFile - /user/acadgild/hadoop/word-count.txt
18/11/26 04:43:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Long years ago, we made atryst with destiny and now the time comes when we shall redeem our pledge, not wholly or in full mea
sure but very substantially. At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom,
We take the pledge of dedication to the service of India. --- Tryst with Destiny
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ echo " Typed ctrl + D to come out of the editing mode"
```

Used the `cat` command to verify the contents of the file.

A terminal window showing the same prompt as before. The user runs 'hadoop fs -cat /user/acadgild/hadoop/word-count.txt'. The same warning message appears. The contents of the file are displayed, including the paragraph about India's independence and the echo command output from the previous step. The prompt returns to [acadgild@localhost ~].

```
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/11/26 04:43:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Long years ago, we made atryst with destiny and now the time comes when we shall redeem our pledge, not wholly or in full mea
sure but very substantially. At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom,
We take the pledge of dedication to the service of India. --- Tryst with Destiny
Typed ctrl + D to come out of the editing mode
You have new mail in /var/spool/mail/acadgild
[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`.

Solution:

Created the file with `touch` command in th test folder in the local FS.

```
[acadgild@localhost test]$ sudo touch max-temp.txt
You have new mail in /var/spool/mail/acadgild
```

Editing the file in nano

```
File Edit View Search Terminal Help
GNU nano 2.0.9 File: max-temp.txt

10-01-1990,10
10-02-1990,20
10-03-1990,30
10-04-1990,40
10-05-1990,50
10-06-1990,60
10-07-1990,70
10-08-1990,80
10-09-1990,90
10-10-1990,100
```

editor

Moved the file from local FS to HDFS with the copyFromLocal command.

```
[acadgild@localhost test]$ hadoop fs -copyFromLocal ./max-temp.txt /user/acadgild/hadoop
18/11/26 05:07:11 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost test]$ hadoop fs -ls /user/acadgild/hadoop
18/11/26 05:07:47 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 2 items
-rw-r--r-- 1 acadgild supergroup 142 2018-11-26 05:07 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 332 2018-11-26 04:46 /user/acadgild/hadoop/word-count.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost test]$
```

Verified the file is present in the HDFS with ls command.

#### 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.

Solution:

before any changes the file have rw for owner and only r for group

```

You have new mail in /var/spool/mail/acadgild
[acadgild@localhost test]$ hadoop fs -ls /user/acadgild/hadoop
18/11/26 05:12:41 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 2 items
-rw-r--r-- 1 acadgild supergroup 142 2018-11-26 05:07 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 332 2018-11-26 04:46 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost test]$

```

After the chmod 770 command the owner and the group got full access and the 0 signifies that others do not have any access over it.

Chmod 770 (chmod a+rwX,o-rwx) sets permissions so that, (U)ser / owner can read, can write and can execute. (G)roup can read, can write and can execute. (O)thers can't read, can't write and can't execute.

Here 4 stands for read , 2 for write and 1 for execute and once we gave a 7 to the user and group it gave them all these writes while 0 removed all these rights form others.

```

[acadgild@localhost test]$ hadoop fs -chmod 770 /user/acadgild/hadoop/max-temp.txt
18/11/26 05:15:52 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost test]$ hadoop fs -ls /user/acadgild/hadoop
18/11/26 05:16:08 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 2 items
-rwxrwx-- 1 acadgild supergroup 142 2018-11-26 05:07 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 332 2018-11-26 04:46 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost test]$

```