

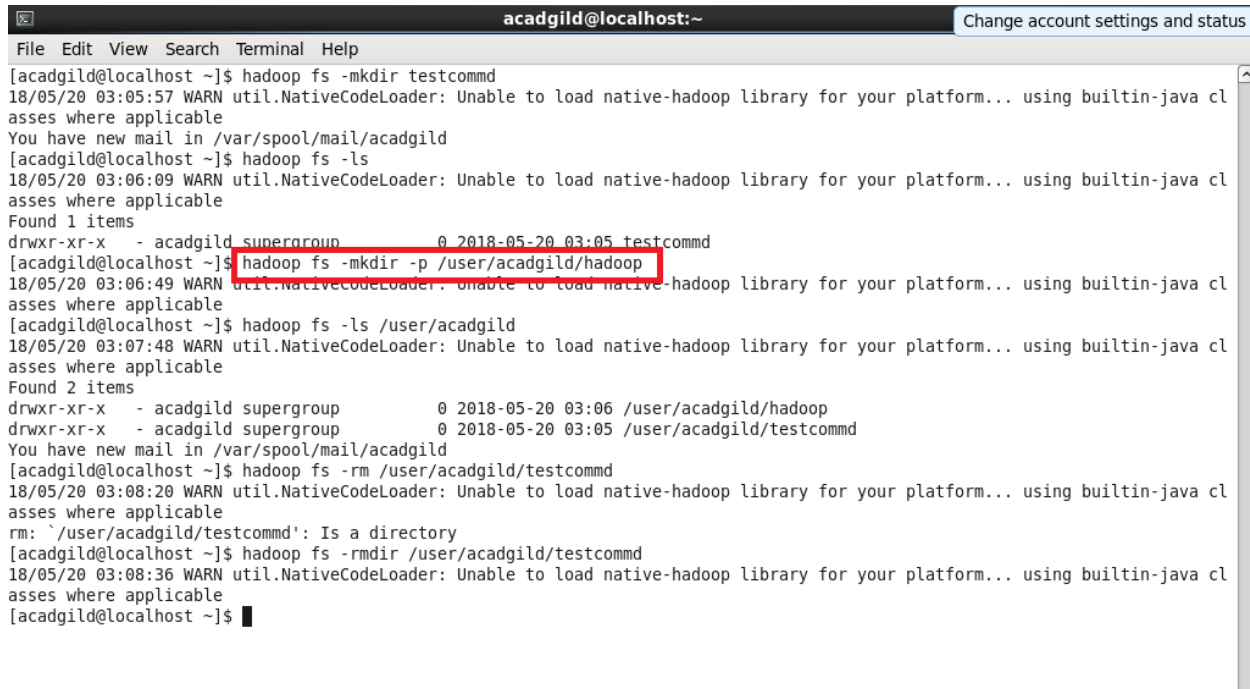
## Task 1:

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.

**Command :** `hdfs dfs -mkdir /user/acadgild/hadoop`

**Explanation:** `hdfs dfs -mkdir dirname` is used to create a new directory

**Output:**

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

```
[acadgild@localhost ~]$ hadoop fs -mkdir testcommnd
18/05/20 03:05:57 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
18/05/20 03:06:09 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 1 items
drwxr-xr-x - acadgild supergroup 0 2018-05-20 03:05 testcommnd
[acadgild@localhost ~]$ hadoop fs -mkdir -p /user/acadgild/hadoop
18/05/20 03:06:49 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild
18/05/20 03:07:48 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Found 2 items
drwxr-xr-x - acadgild supergroup 0 2018-05-20 03:06 /user/acadgild/hadoop
drwxr-xr-x - acadgild supergroup 0 2018-05-20 03:05 /user/acadgild/testcommnd
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -rm /user/acadgild/testcommnd
18/05/20 03:08:20 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
rm: `/user/acadgild/testcommnd': Is a directory
[acadgild@localhost ~]$ hadoop fs -rmdir /user/acadgild/testcommnd
18/05/20 03:08:36 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ █
```

## Task 2:

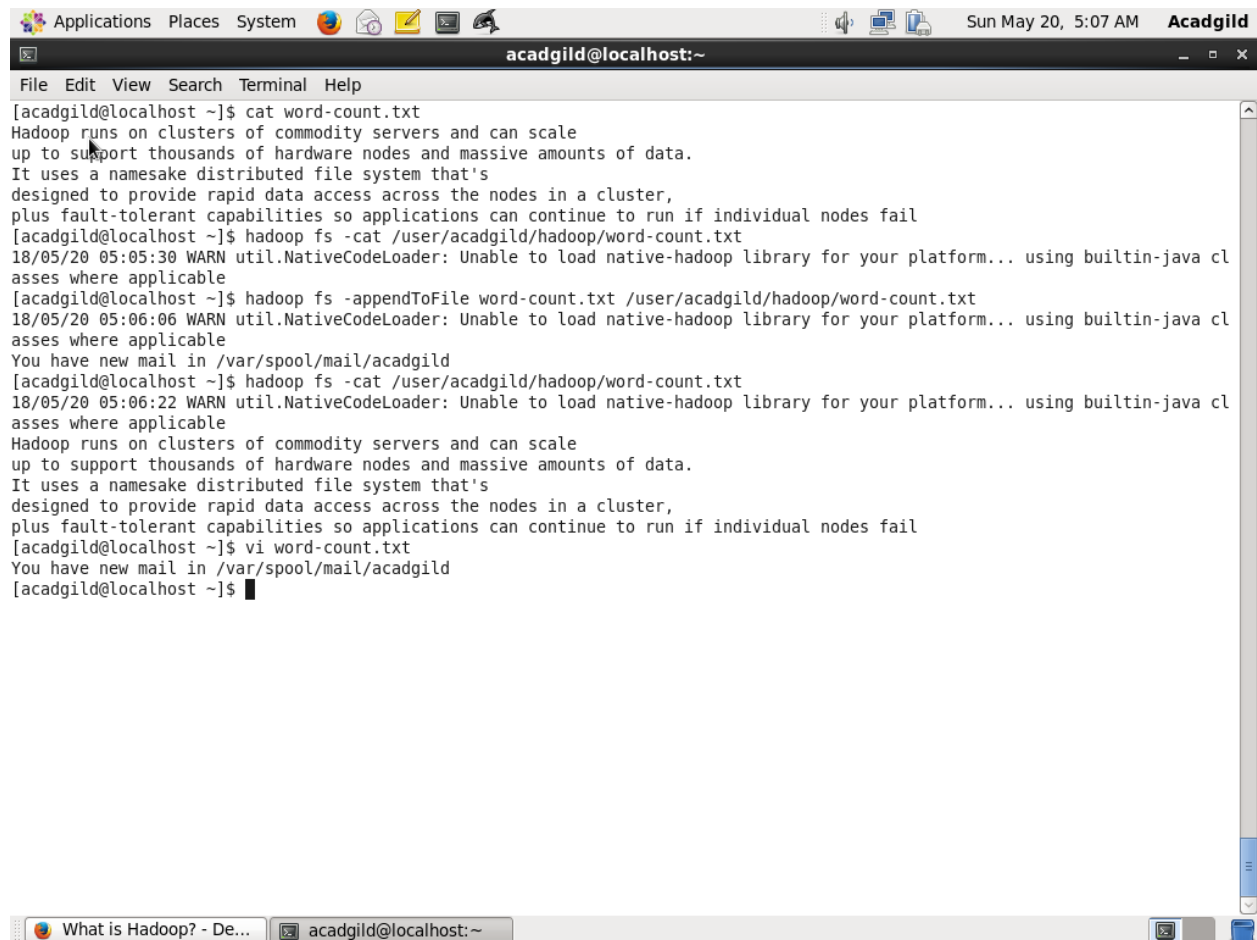
Create a file in HDFS under directory /user/acadgild/hadoop, with name word-count.txt. Whatever we type on screen should get appended to the file. Try to type (on screen) few lines from any online article or textbook.

**Commands and Explanation :**

- **hdfs dfs -touchz /user/acadgild/hadoop/word-count.txt**  
-touchz is used to create a new file [word-count.txt] in hdfs
- **vi word-count.txt**  
vi is used to create a new file in local FS. Once the file is created add few data to the file.
- **hdfs dfs -appendToFile word-count.txt /user/acadgild/hadoop/word-count.txt**  
-appendToFile is used to append the data to the file.

## Output:

```
[acacgild@localhost ~]$ cd /user/acacgild/hadoop
bash: cd: /user/acacgild/hadoop: No such file or directory
[acacgild@localhost ~]$ hadoop fs -touchz /user/acacgild/hadoop/word-count.txt
18/05/20 03:18:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform. . usir
asses where applicable
You have new mail in /var/spool/mail/acacgild
[acacgild@localhost ~]$ hadoop fs -ls
18/05/20 03:19:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform. . usir
asses where applicable
Found 2 items
drwxr-xr-x  - acacgild supergroup          0 2018-05-20 03:18 hadoop
-rw-r--r--  1 acacgild supergroup          0 2018-05-20 03:17 word-count.txt
[acacgild@localhost ~]$
```



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

```
[acacgild@localhost ~]$ cat word-count.txt
Hadoop runs on clusters of commodity servers and can scale
up to support thousands of hardware nodes and massive amounts of data.
It uses a namesake distributed file system that's
designed to provide rapid data access across the nodes in a cluster,
plus fault-tolerant capabilities so applications can continue to run if individual nodes fail
[acacgild@localhost ~]$ hadoop fs -cat /user/acacgild/hadoop/word-count.txt
18/05/20 05:05:30 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acacgild@localhost ~]$ hadoop fs -appendToFile word-count.txt /user/acacgild/hadoop/word-count.txt
18/05/20 05:06:06 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/acacgild
[acacgild@localhost ~]$ hadoop fs -cat /user/acacgild/hadoop/word-count.txt
18/05/20 05:06:22 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
Hadoop runs on clusters of commodity servers and can scale
up to support thousands of hardware nodes and massive amounts of data.
It uses a namesake distributed file system that's
designed to provide rapid data access across the nodes in a cluster,
plus fault-tolerant capabilities so applications can continue to run if individual nodes fail
[acacgild@localhost ~]$ vi word-count.txt
You have new mail in /var/spool/mail/acacgild
[acacgild@localhost ~]$
```

The terminal window is part of a desktop environment with a taskbar at the bottom showing 'What is Hadoop? - De...' and 'acacgild@localhost:~'. The system clock in the top right corner indicates 'Sun May 20, 5:07 AM' and the user is 'Acacgild'.

### 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.

#### Commands and Explanation :

- **vi max-temp.txt**  
vi is used to create a new file in local FS. Once the file is created add few data to the file.
- **hdfs dfs -put /user/acadgild/hadoop/max-temp.txt**  
-put is used to add the file from local FS to hadoop FS.

#### Output:

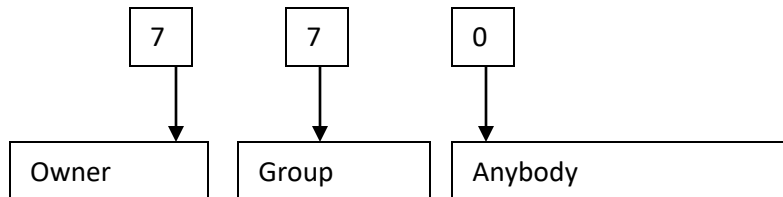
```
[acadgild@localhost ~]$ vi max-temp.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ cat max-temp.txt
20-01-1991,10
20-02-1992,20
20-03-1993,30
20-05-1994,50
20-06-1996,80
20-01-1997,90
20-05-1999,20
30-09-2000,30
31-12-2001,40
01-01-2002,10
[acadgild@localhost ~]$ hdfs dfs -put max-temp.txt /user/acadgild/hadoop/
18/05/20 05:40:22 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ hdfs dfs -ls /user/acadgild/hadoop/
18/05/20 05:40:44 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      140 2018-05-20 05:40 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup    1380 2018-05-20 05:34 /user/acadgild/hadoop/word-count.txt
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hdfs dfs -cat /user/acadgild/hadoop/max-temp.txt
18/05/20 05:41:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
20-01-1991,10
20-02-1992,20
20-03-1993,30
20-05-1994,50
20-06-1996,80
20-01-1997,90
20-05-1999,20
30-09-2000,30
31-12-2001,40
01-01-2002,10
[acadgild@localhost ~]$ █
```

#### 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.

#### Commands and Explanation :

- **`hdfs dfs -chmod 770 /user/acadgild/hadoop/max-temp.txt`**  
-chmod 770 provides the required access



7 -> will have permission for Read,write,Execute

#### Output:

```
Applications Places System [Sun May 20, 5:43 AM] Acadgild
acadgild@localhost:~
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hdfs dfs -ls /user/acadgild/hadoop/
18/05/20 05:42:03 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 140 2018-05-20 05:40 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 1380 2018-05-20 05:34 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$ hdfs dfs -chmod 770 /user/acadgild/hadoop/max-temp.txt
18/05/20 05:42:30 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost ~]$ hdfs dfs -ls /user/acadgild/hadoop/
18/05/20 05:42:42 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 140 2018-05-20 05:40 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 1380 2018-05-20 05:34 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$
```