

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

Directory not present

```
[acadgild@localhost ~]$ hadoop fs -ls /
18/08/04 12:03:04 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 8 items
-rw-r--r-- 1 acadgild supergroup 1056906185 2018-07-24 00:45 /file11.txt
-rw-r--r-- 1 acadgild supergroup 268435456 2018-07-24 02:00 /file1gb.txt._COPYING_
drwxr-xr-x - acadgild supergroup 0 2018-07-23 19:37 /hadoopdata
drwxr-xr-x - acadgild supergroup 0 2018-05-16 13:49 /hbase
drwxr-xr-x - acadgild supergroup 0 2018-07-21 14:34 /output
-rw-r--r-- 1 acadgild supergroup 27 2018-07-21 11:12 /test.txt
-rw-r--r-- 1 acadgild supergroup 10 2018-07-23 01:02 /test2.txt
drwx-wx-wx - acadgild supergroup 0 2018-05-16 13:42 /tmp
[acadgild@localhost ~]$
```

```
[acadgild@localhost ~]$ hadoop fs -mkdir /user
18/08/04 12:11:14 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
18/08/04 12:11:38 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
^[[A[acadgild@localhost ~]$ hadoop fs -mkdir /user/acadgild/hadoop
18/08/04 12:12:17 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -ls /
18/08/04 12:12:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Found 9 items
-rw-r--r-- 1 acadgild supergroup 1056906185 2018-07-24 00:45 /file11.txt
-rw-r--r-- 1 acadgild supergroup 268435456 2018-07-24 02:00 /file1gb.txt._COPYING_
drwxr-xr-x - acadgild supergroup 0 2018-07-23 19:37 /hadoopdata
drwxr-xr-x - acadgild supergroup 0 2018-05-16 13:49 /hbase
drwxr-xr-x - acadgild supergroup 0 2018-07-21 14:34 /output
-rw-r--r-- 1 acadgild supergroup 27 2018-07-21 11:12 /test.txt
-rw-r--r-- 1 acadgild supergroup 10 2018-07-23 01:02 /test2.txt
drwx-wx-wx - acadgild supergroup 0 2018-05-16 13:42 /tmp
drwxr-xr-x - acadgild supergroup 0 2018-08-04 12:11 /user
[acadgild@localhost ~]$
```

Task 2:

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

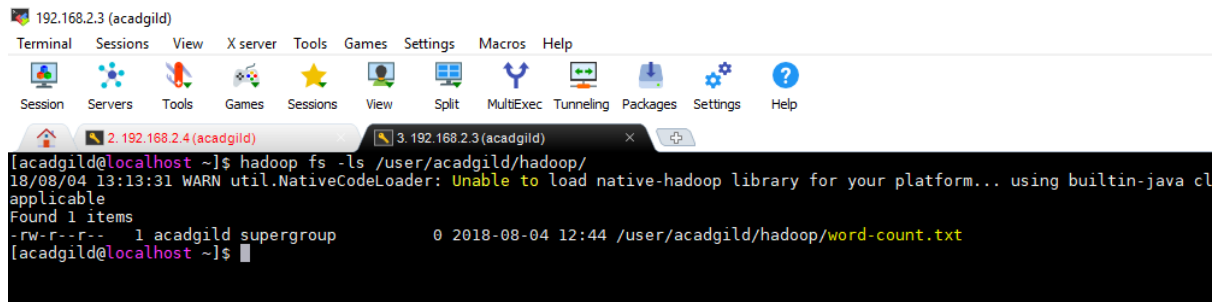
Whatever we type on screen should get appended to the file.

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

Solution

Create a 0 bytes word-count.txt file using touchz command

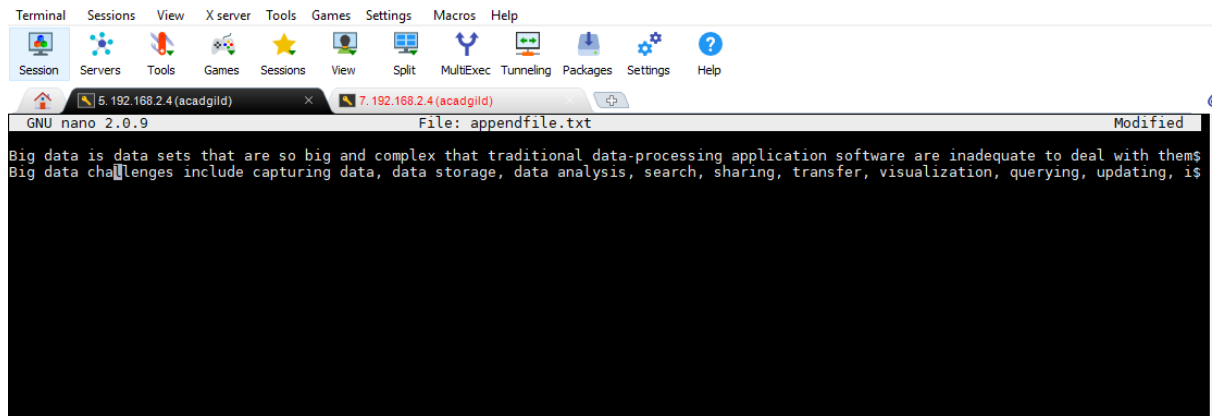
```
[acadgild@localhost ~]$ hadoop fs -touchz /user/acadgild/hadoop/word-count.txt
18/08/04 12:44:17 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
```



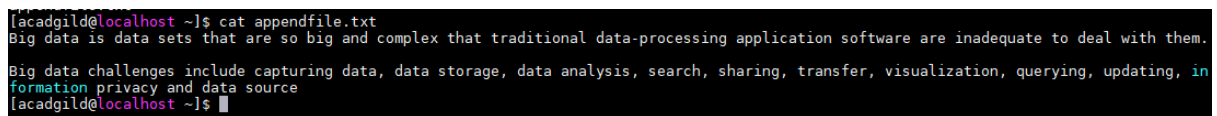
```
192.168.2.3 (acadgild)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop/
18/08/04 13:13:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
applicable
Found 1 items
-rw-r--r-- 1 acadgild supergroup          0 2018-08-04 12:44 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$
```

Use nano command to type (on screen) few lines from any online article or textbook.

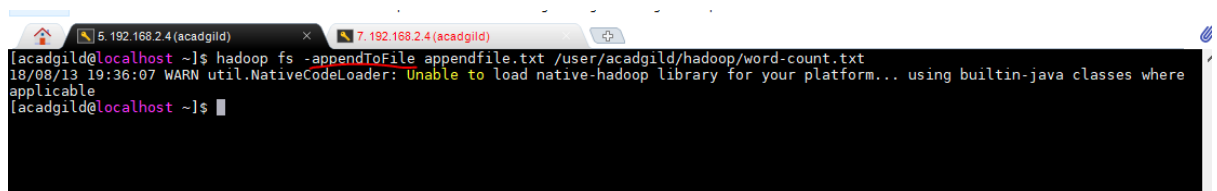


```
GNU nano 2.0.9 File: appendfile.txt Modified
Big data is data sets that are so big and complex that traditional data-processing application software are inadequate to deal with them.
Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, is
```

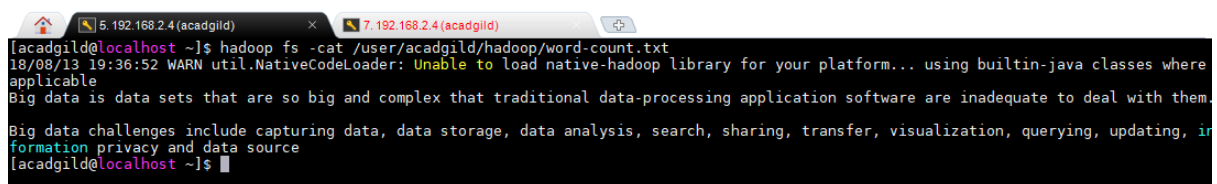


```
[acadgild@localhost ~]$ cat appendfile.txt
Big data is data sets that are so big and complex that traditional data-processing application software are inadequate to deal with them.
Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, in
formation privacy and data source
[acadgild@localhost ~]$
```

Use appendToFile command to append the contents from the above file to word-count.txt



```
[acadgild@localhost ~]$ hadoop fs -appendToFile appendfile.txt /user/acadgild/hadoop/word-count.txt
18/08/13 19:36:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where
applicable
[acadgild@localhost ~]$
```



```
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/08/13 19:36:52 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where
applicable
Big data is data sets that are so big and complex that traditional data-processing application software are inadequate to deal with them.
Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, in
formation privacy and data source
[acadgild@localhost ~]$
```

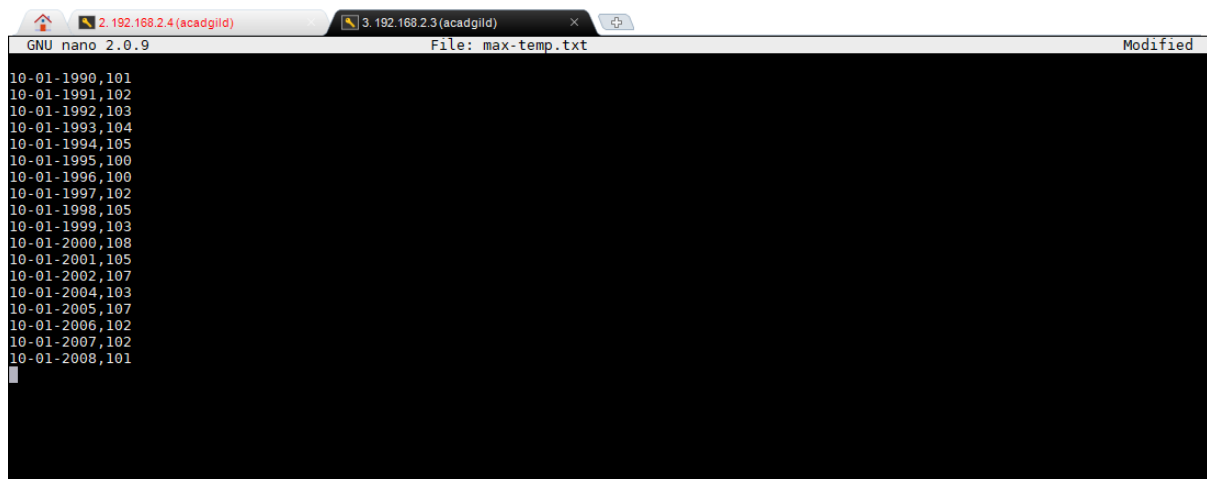
Task 3:

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

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

dd-mm-yyyy,temperature

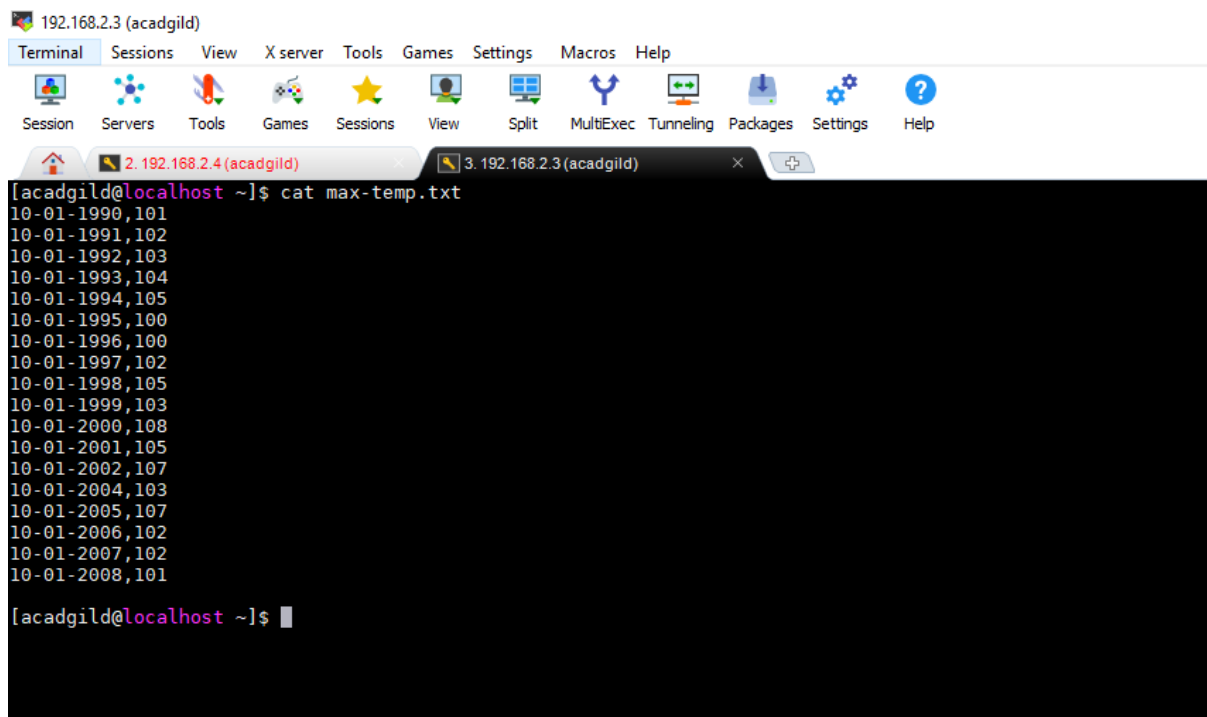
Command – nano max-temp.txt



The screenshot shows a nano text editor window with the title bar "GNU nano 2.0.9" and "File: max-temp.txt". The editor contains a list of dates and numbers, one per line, from 10-01-1990 to 10-01-2008. The status bar at the bottom right indicates "Modified".

```
10-01-1990,101
10-01-1991,102
10-01-1992,103
10-01-1993,104
10-01-1994,105
10-01-1995,100
10-01-1996,100
10-01-1997,102
10-01-1998,105
10-01-1999,103
10-01-2000,108
10-01-2001,105
10-01-2002,107
10-01-2004,103
10-01-2005,107
10-01-2006,102
10-01-2007,102
10-01-2008,101
```

View the file

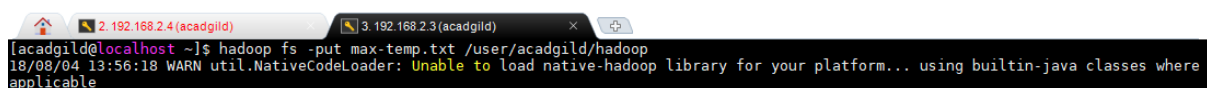


The screenshot shows a terminal window with a menu bar (Terminal, Sessions, View, X server, Tools, Games, Settings, Macros, Help) and a toolbar. The terminal displays the command `cat max-temp.txt` and its output, which is the same list of dates and numbers as in the previous screenshot. The prompt is `[acadgild@localhost ~]$`.

```
[acadgild@localhost ~]$ cat max-temp.txt
10-01-1990,101
10-01-1991,102
10-01-1992,103
10-01-1993,104
10-01-1994,105
10-01-1995,100
10-01-1996,100
10-01-1997,102
10-01-1998,105
10-01-1999,103
10-01-2000,108
10-01-2001,105
10-01-2002,107
10-01-2004,103
10-01-2005,107
10-01-2006,102
10-01-2007,102
10-01-2008,101

[acadgild@localhost ~]$
```

Putting the file in HDFS



The screenshot shows a terminal window with the command `hadoop fs -put max-temp.txt /user/acadgild/hadoop` being executed. The output shows a warning message: `18/08/04 13:56:18 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable`.

```
[acadgild@localhost ~]$ hadoop fs -put max-temp.txt /user/acadgild/hadoop
18/08/04 13:56:18 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
```

Viewing the file

```
[acadgild@localhost ~]$ hadoop fs -ls /user/acadgild/hadoop/
18/08/04 13:57:23 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 271 2018-08-04 13:56 /user/acadgild/hadoop/max-temp.txt
-rw-r--r-- 1 acadgild supergroup 0 2018-08-04 12:44 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/max-temp.txt
18/08/04 13:57:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
10-01-1990,101
10-01-1991,102
10-01-1992,103
10-01-1993,104
10-01-1994,105
10-01-1995,100
10-01-1996,100
10-01-1997,102
10-01-1998,105
10-01-1999,103
10-01-2000,108
10-01-2001,105
10-01-2002,107
10-01-2004,103
10-01-2005,107
10-01-2006,102
10-01-2007,102
10-01-2008,101
[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.

```
[acadgild@localhost ~]$ hadoop fs -getfacl -R /user/acadgild/hadoop/max-temp.txt
18/08/04 14:22:01 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
# file: /user/acadgild/hadoop/max-temp.txt
# owner: acadgild
# group: supergroup
user::rw-
group::r--
other::r--
```

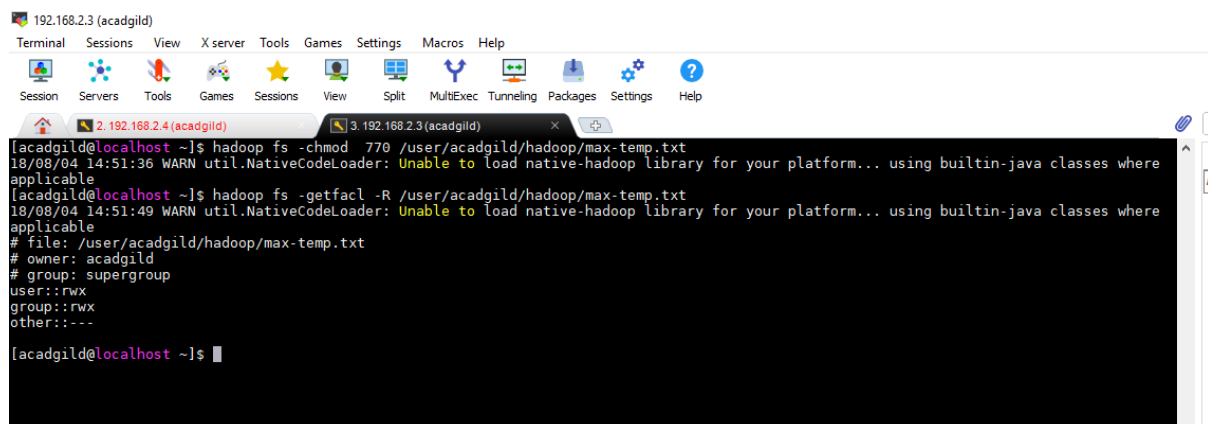
Numeric Values for

Read = 4

Write = 2

Execute = 1

Hence we give 770 execute permission for owner,group and others



```
192.168.2.3 (acadgild)
Terminal Sessions View X server Tools Games Settings Macros Help
Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help
2. 192.168.2.4 (acadgild) 3. 192.168.2.3 (acadgild)
[acadgild@localhost ~]$ hadoop fs -chmod 770 /user/acadgild/hadoop/max-temp.txt
18/08/04 14:51:36 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
[acadgild@localhost ~]$ hadoop fs -getfacl -R /user/acadgild/hadoop/max-temp.txt
18/08/04 14:51:49 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
# file: /user/acadgild/hadoop/max-temp.txt
# owner: acadgild
# group: supergroup
user::rwx
group::rwx
other::---
[acadgild@localhost ~]$
```