

## Session 2 : Introduction to HDFS

### Task1

*There is no folder acadgild under user directory.*

*Created acadgild directory using below command that is highlighted and also created Hadoop directory under acadgild.*

```
[acadgild@localhost Documents]$ hdfs dfs -ls /user/acadgild
18/05/22 11:15:47 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 Documents]$ hdfs dfs -mkdir /user/acadgild
18/05/22 11:15:57 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
your platform... using builtin-java classes where applicable
[acadgild@localhost Documents]$ hdfs dfs -mkdir /user/acadgild/hadoop
18/05/22 11:16:09 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
drwxr-xr-x  - acadgild supergroup      0 2018-05-22 11:16 /user/acadgild/hadoop
[acadgild@localhost Documents]$ hdfs dfs -ls /user/acadgild/hadoop
18/05/22 11:16:43 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
your platform... using builtin-java classes where applicable
[acadgild@localhost Documents]$
```



```
[acadgild@localhost Documents]$ ll
```

```
total 4
```

```
-rw-rw-r--. 1 acadgild acadgild 563 May 22 11:35 word-count.txt
```

```
[acadgild@localhost Documents]$ cat word-count.txt
```

Google “ the company you turn to when you need information “  
is one of the biggest developers of artificial intelligence.

In fact, if you googled “google artificial intelligence” like I did,  
you would find several company pages that explain their mission and showcase their work.

Google even lets you collaborate with them in their artificial intelligence experiments.

However, the experiments or projects on these pages are only the tip of the iceberg.

Google clearly does not showcase all of their work or experiments in these pages, only a few.

```
[acadgild@localhost Documents]$
```

```
You have new mail in /var/spool/mail/acadgild
```

```
[acadgild@localhost Documents]$
```

```
[acadgild@localhost Documents]$
```

```
[acadgild@localhost Documents]$ hdfs dfs -appendToFile word-count-txt
```

```
/user/acadgild/hadoop/word-count.txt
```

```
18/05/22 11:39:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for  
your platform... using builtin-java classes where applicable
```

```
appendToFile: /home/acadgild/Documents/word-count-txt (No such file or directory)
```

```
[acadgild@localhost Documents]$ hdfs dfs -appendToFile word-count.txt
```

```
/user/acadgild/hadoop/word-count.txt
```

```
18/05/22 11:40:18 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 Documents]$ hdfs dfs -cat /user/acadgild/hadoop/word-count.txt
```

```
18/05/22 11:40:37 WARN util.NativeCodeLoader: Unable to load native-hadoop library for  
your platform... using builtin-java classes where applicable
```

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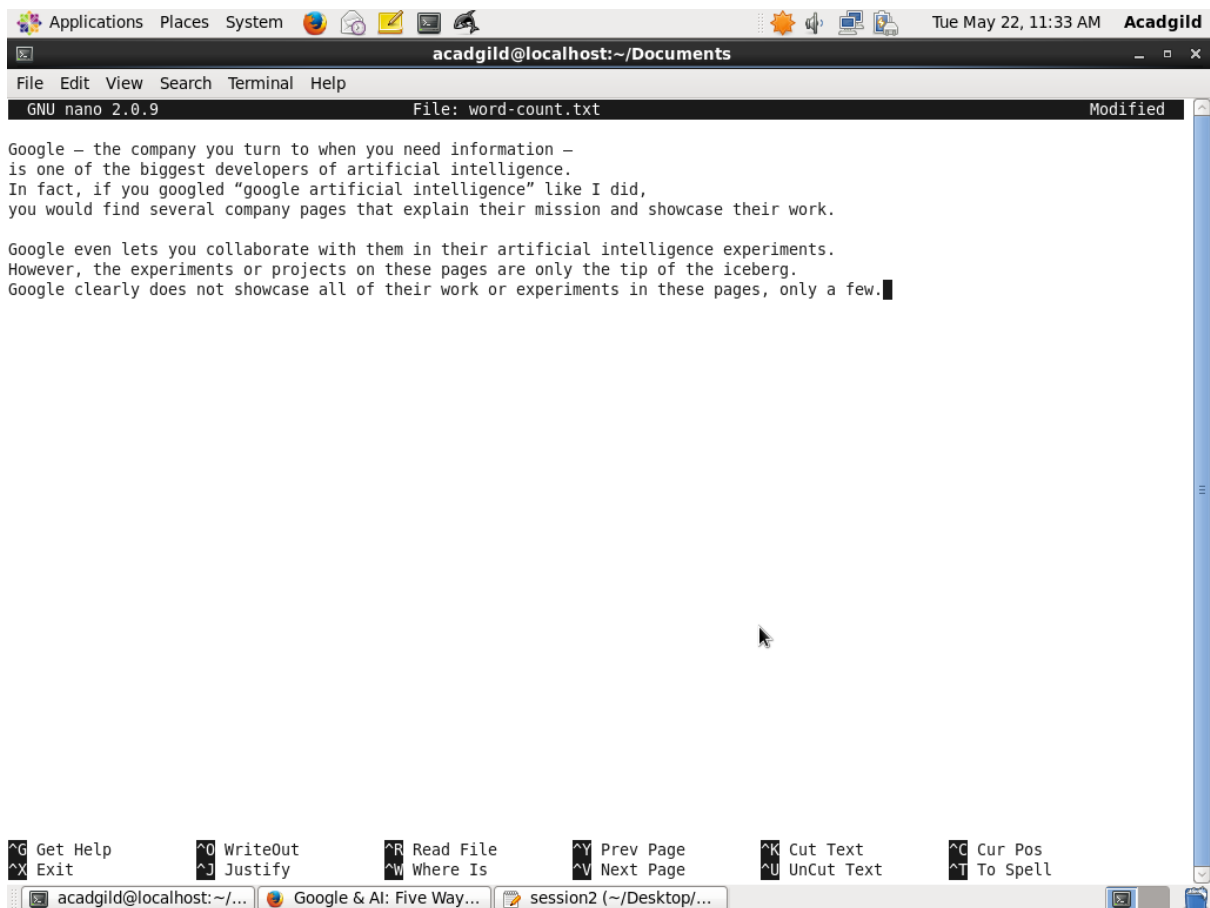
However, the experiments or projects on these pages are only the tip of the iceberg.

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```

[acadgild@localhost Documents]$ hdfs dfs -touchz /user/acadgild/hadoop/word-count.txt
18/05/22 11:20:45 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 Documents]$ hdfs dfs -ls /user/acadgild/hadoop
18/05/22 11:21:02 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 2018-05-22 11:20 /user/acadgild/hadoop/word-count.txt
[acadgild@localhost Documents]$ hdfs dfs -cat /user/acadgild/hadoop/word-count.txt
18/05/22 11:21:14 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
[acadgild@localhost Documents]$ ^C
[acadgild@localhost Documents]$ ^C
[acadgild@localhost Documents]$ hdfs dfs -cat /user/acadgild/hadoop/word-count.txt

```



The screenshot shows a Linux desktop environment. At the top, there is a panel with icons for Applications, Places, System, and a system clock showing 'Tue May 22, 11:33 AM' and the username 'Acadgild'. Below this is a terminal window titled 'acadgild@localhost:~/Documents'. The terminal is running the nano text editor, editing a file named 'word-count.txt'. The file's content is displayed on the screen:

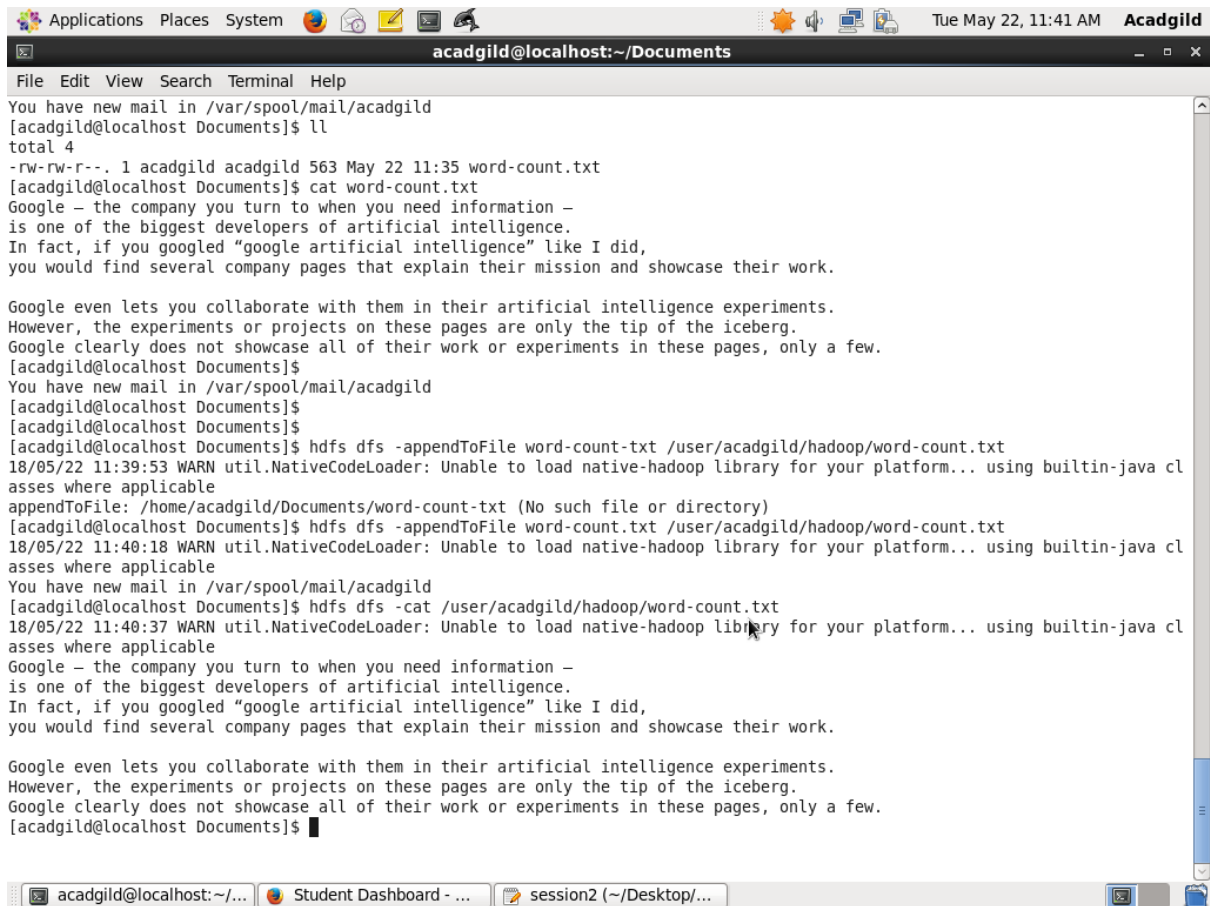
```

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```

At the bottom of the terminal window, there is a status bar with various shortcuts and a taskbar showing the terminal window and a taskbar with icons for 'Google & AI: Five Way...' and 'session2 (~/Desktop/...'.



The screenshot shows a terminal window titled 'acadgild@localhost: ~/Documents'. The user has just received a new email in /var/spool/mail/acadgild. They run 'll' and see a file 'word-count.txt' with permissions '-rw-rw-r--', owned by 'acadgild', size 563, dated 'May 22 11:35'. They then run 'cat word-count.txt' and see text about Google's artificial intelligence. Next, they run 'hdfs dfs -appendToFile word-count.txt /user/acadgild/hadoop/word-count.txt' and receive a warning: '18/05/22 11:39:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable'. They then run 'hdfs dfs -cat /user/acadgild/hadoop/word-count.txt' and see the same text about Google. The terminal window has a menu bar with 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The bottom of the window shows a taskbar with icons for 'acadgild@localhost: ~/...', 'Student Dashboard - ...', and 'session2 (~/Desktop/...)'.

```
File Edit View Search Terminal Help
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost Documents]$ ll
total 4
-rw-rw-r--. 1 acadgild acadgild 563 May 22 11:35 word-count.txt
[acadgild@localhost Documents]$ cat word-count.txt
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[acadgild@localhost Documents]$
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost Documents]$
[acadgild@localhost Documents]$
[acadgild@localhost Documents]$ hdfs dfs -appendToFile word-count.txt /user/acadgild/hadoop/word-count.txt
18/05/22 11:39:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
appendToFile: /home/acadgild/Documents/word-count.txt (No such file or directory)
[acadgild@localhost Documents]$ hdfs dfs -appendToFile word-count.txt /user/acadgild/hadoop/word-count.txt
18/05/22 11:40:18 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 Documents]$ hdfs dfs -cat /user/acadgild/hadoop/word-count.txt
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[acadgild@localhost Documents]$
```

## Task 3

*Created file on local host with some date and temperature records and used put command to move the file in hdfs.*

```
[acadgild@localhost Documents]$ nano max-temp.text
```

```
You have new mail in /var/spool/mail/acadgild
```

```
[acadgild@localhost Documents]$ cat max-temp.text
```

```
10-01-1990,10
```

```
10-01-1991,11
```

```
10-01-1992,12
```

```
10-01-1993,18
```

```
10-01-1994,14
```

```
10-01-1995,26
```

```
10-01-1996,26
```

```
10-01-1997,30
```

```
10-01-1998,42
```

```
10-01-1999,29
```

```
10-01-2000,14
```

```
10-01-2001,12
```

```
10-01-2002,33
```

```
10-01-2003,29
```

```
10-01-2004,14
```

10-01-2005,22

[acadgild@localhost Documents]\$

[acadgild@localhost Documents]\$ **hdfs dfs -put max-temp.text  
/user/acadgild/hadoop**

18/05/22 11:59:05 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 Documents]\$ **hdfs dfs -ls /user/acadgild/hadoop**

18/05/22 11:59:18 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 225 2018-05-22 11:59 /user/acadgild/hadoop/max-temp.text

-rw-r--r-- 1 acadgild supergroup 563 2018-05-22 11:40 /user/acadgild/hadoop/word-count.txt

[acadgild@localhost Documents]\$ **hdfs dfs -cat /user/acadgild/hadoop/max-temp.text**

18/05/22 12:01:23 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable

10-01-1990,10

10-01-1991,11

10-01-1992,12

10-01-1993,18

10-01-1994,14

10-01-1995,26

10-01-1996,26

10-01-1997,30

10-01-1998,42

10-01-1999,29

10-01-2000,14

10-01-2001,12

10-01-2002,33

10-01-2003,29

10-01-2004,14

10-01-2005,22

## Task 4

*chmod used to change the permission of file. Complete control means full permission i.e., 7 (write-4,read -2,execute-1) and 0 means no permission.*

```
[acadgild@localhost Documents]$ hdfs dfs -ls /user/acadgild/hadoop/max-temp.text
18/05/22 12:02:05 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
your platform... using builtin-java classes where applicable
-rw-r--r--  1 acadgild supergroup      225 2018-05-22 11:59 /user/acadgild/hadoop/max-
temp.text
```

You have new mail in /var/spool/mail/acadgild

```
[acadgild@localhost Documents]$ hdfs dfs -chmod 770
/user/acadgild/hadoop/max-temp.text
```

```
18/05/22 12:02:25 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
your platform... using builtin-java classes where applicable
```

```
[acadgild@localhost Documents]$ hdfs dfs -ls /user/acadgild/hadoop/max-temp.text
18/05/22 12:02:32 WARN util.NativeCodeLoader: Unable to load native-hadoop library for
your platform... using builtin-java classes where applicable
-rwxrwx---  1 acadgild supergroup      225 2018-05-22 11:59 /user/acadgild/hadoop/max-
temp.text
```

```
[acadgild@localhost Documents]$
```

