

SMIT R PATEL

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SEM 5

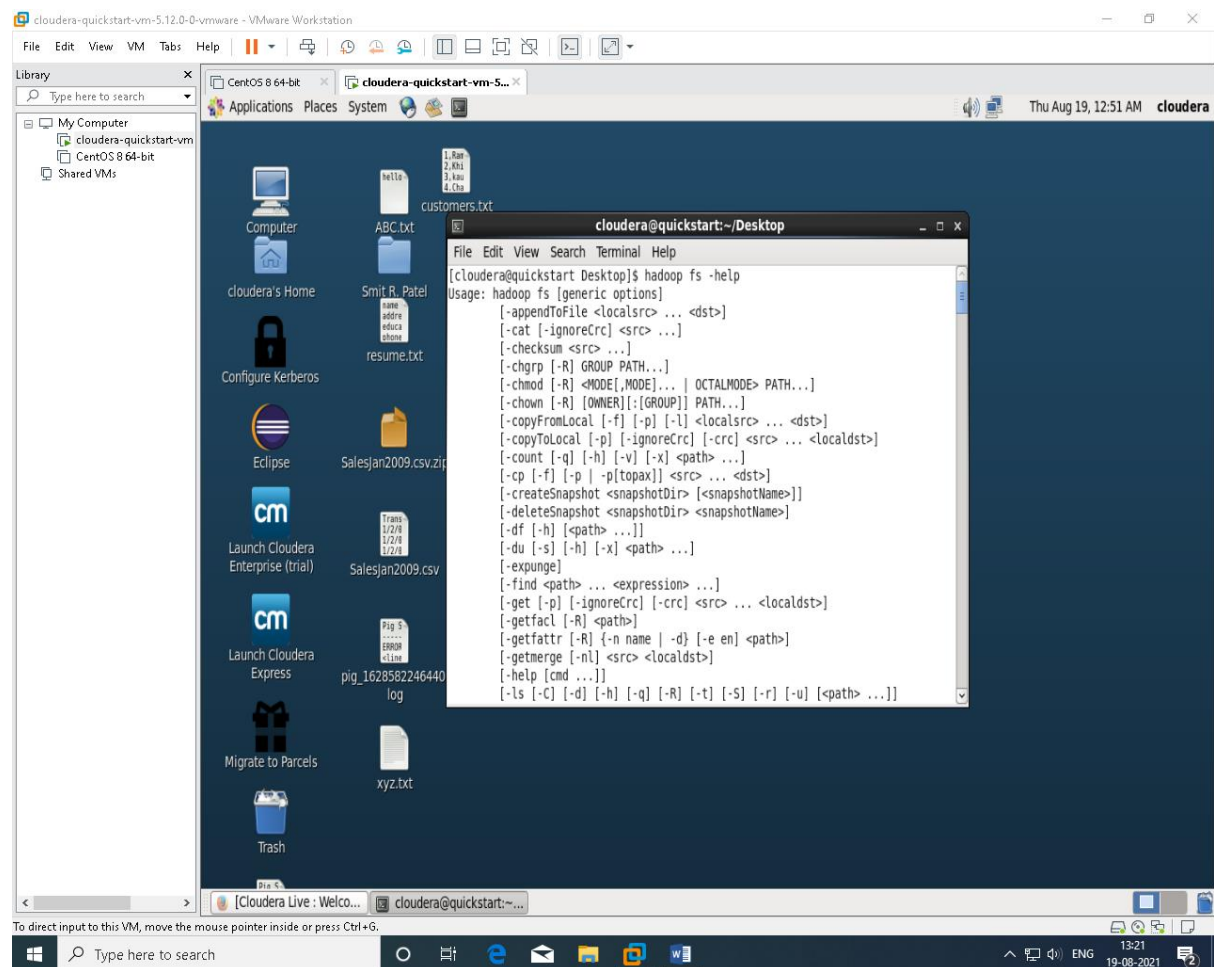
BDA

PRACTICAL 2

AIM- To understand the working of different basic Hadoop commands compared to Linux commands.

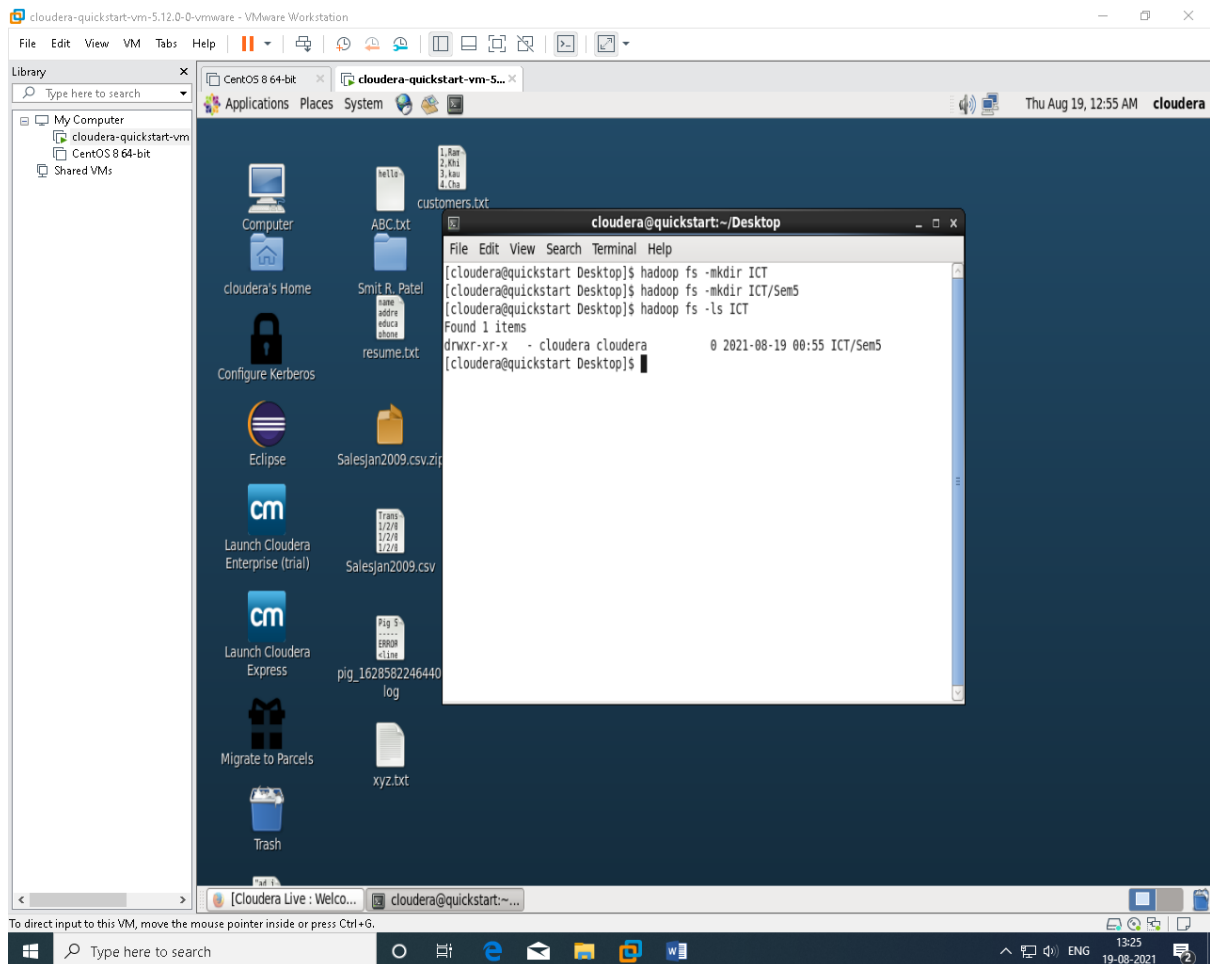
Tasks:

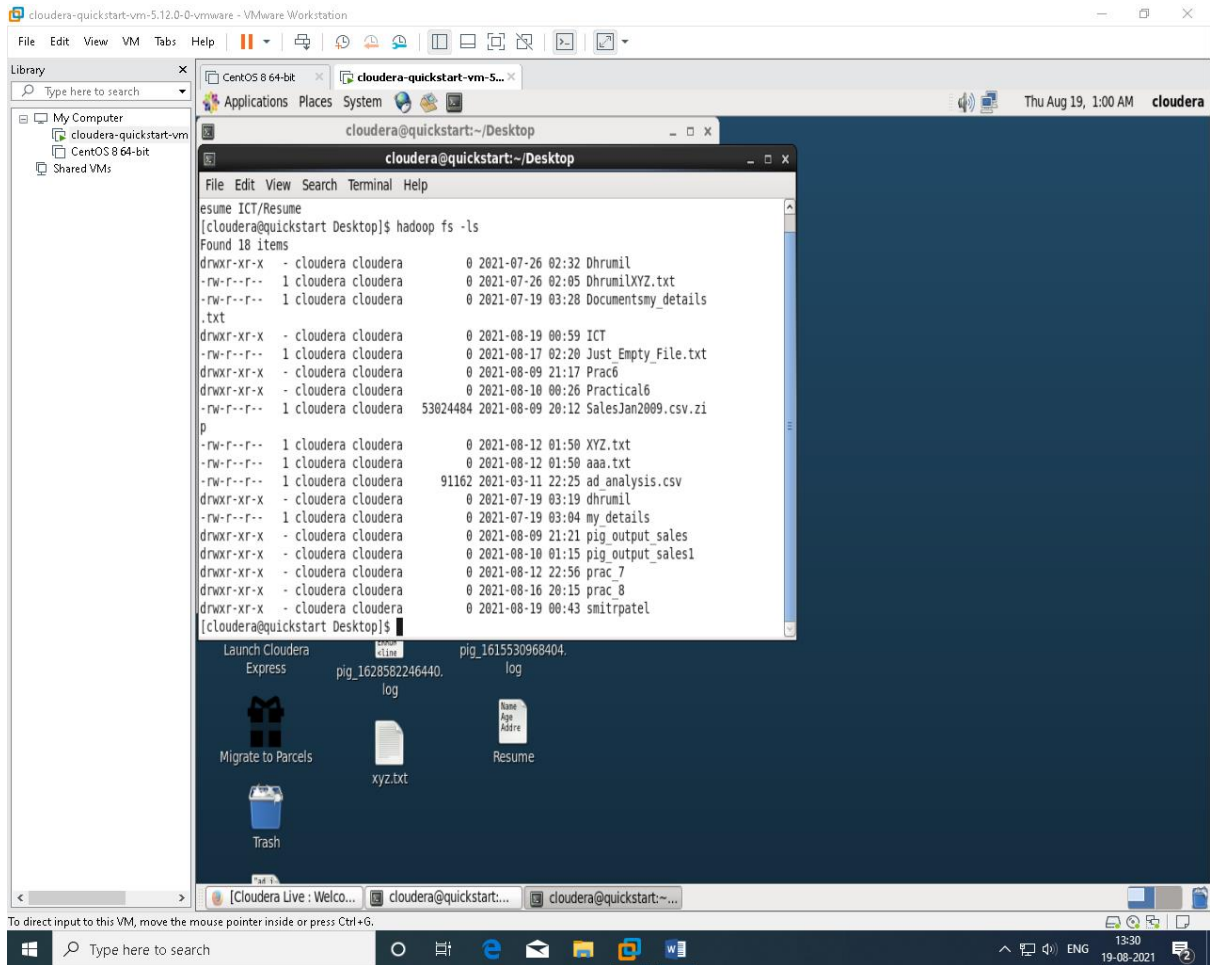
1. You are working on Hadoop system for the first time, and you need to figure out all the available Hadoop commands and how to use them. Use the “-help” command to do this.



2.

A. Create directory ICT and inside that create subdirectory sem-5. Upload your resume in this folder and display its content.

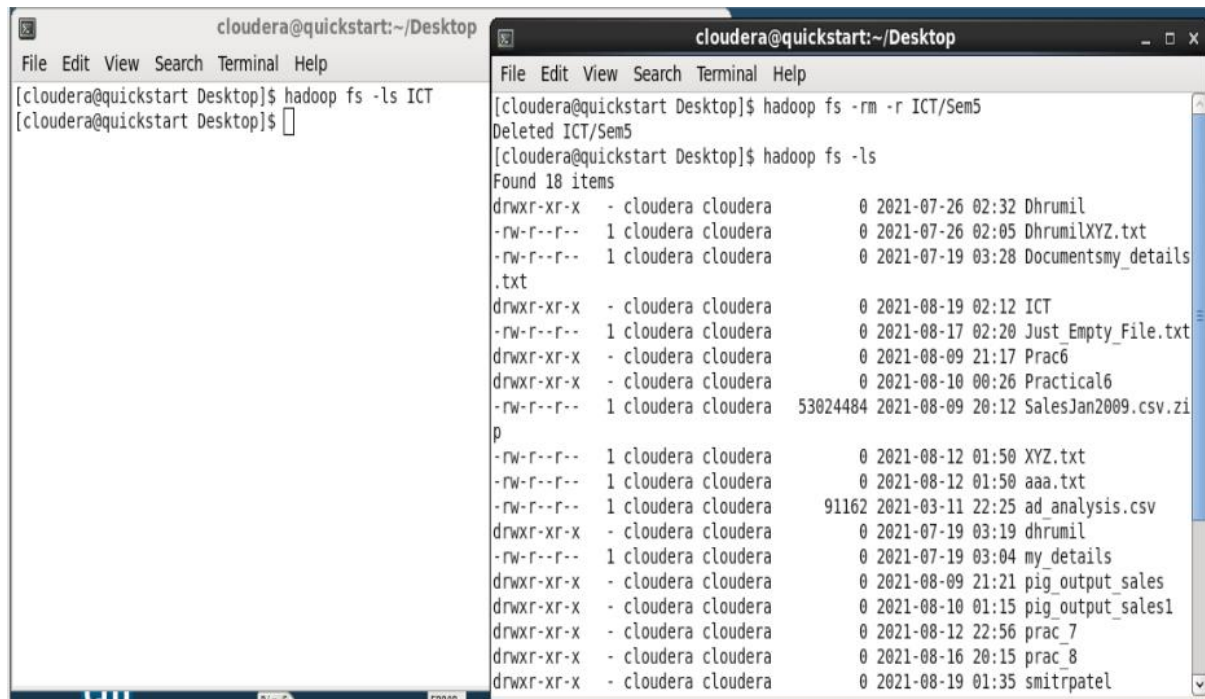




```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
drwxr-xr-x - cloudera cloudera 0 2021-07-26 02:32 Dhrumil
-rw-r--r-- 1 cloudera cloudera 0 2021-07-26 02:05 DhrumilXYZ.txt
-rw-r--r-- 1 cloudera cloudera 0 2021-07-19 03:28 Documentsmy_details
.txt
drwxr-xr-x - cloudera cloudera 0 2021-08-19 01:24 ICT
-rw-r--r-- 1 cloudera cloudera 0 2021-08-17 02:20 Just_Empty_File.txt
drwxr-xr-x - cloudera cloudera 0 2021-08-09 21:17 Prac6
drwxr-xr-x - cloudera cloudera 0 2021-08-10 00:26 Practical6
-rw-r--r-- 1 cloudera cloudera 53024484 2021-08-09 20:12 SalesJan2009.csv.zip
-rw-r--r-- 1 cloudera cloudera 0 2021-08-12 01:50 XYZ.txt
-rw-r--r-- 1 cloudera cloudera 0 2021-08-12 01:50 aaa.txt
-rw-r--r-- 1 cloudera cloudera 91162 2021-03-11 22:25 ad_analysis.csv
drwxr-xr-x - cloudera cloudera 0 2021-07-19 03:19 dhrumil
-rw-r--r-- 1 cloudera cloudera 0 2021-07-19 03:04 my_details
drwxr-xr-x - cloudera cloudera 0 2021-08-09 21:21 pig_output_sales
drwxr-xr-x - cloudera cloudera 0 2021-08-10 01:15 pig_output_sales1
drwxr-xr-x - cloudera cloudera 0 2021-08-12 22:56 prac_7
drwxr-xr-x - cloudera cloudera 0 2021-08-16 20:15 prac_8
drwxr-xr-x - cloudera cloudera 0 2021-08-19 00:43 smitrpatel
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT/Sem5
Found 1 items
-rw-r--r-- 1 cloudera cloudera 54 2021-08-19 01:27 ICT/Sem5/Resume
[cloudera@quickstart Desktop]$
```

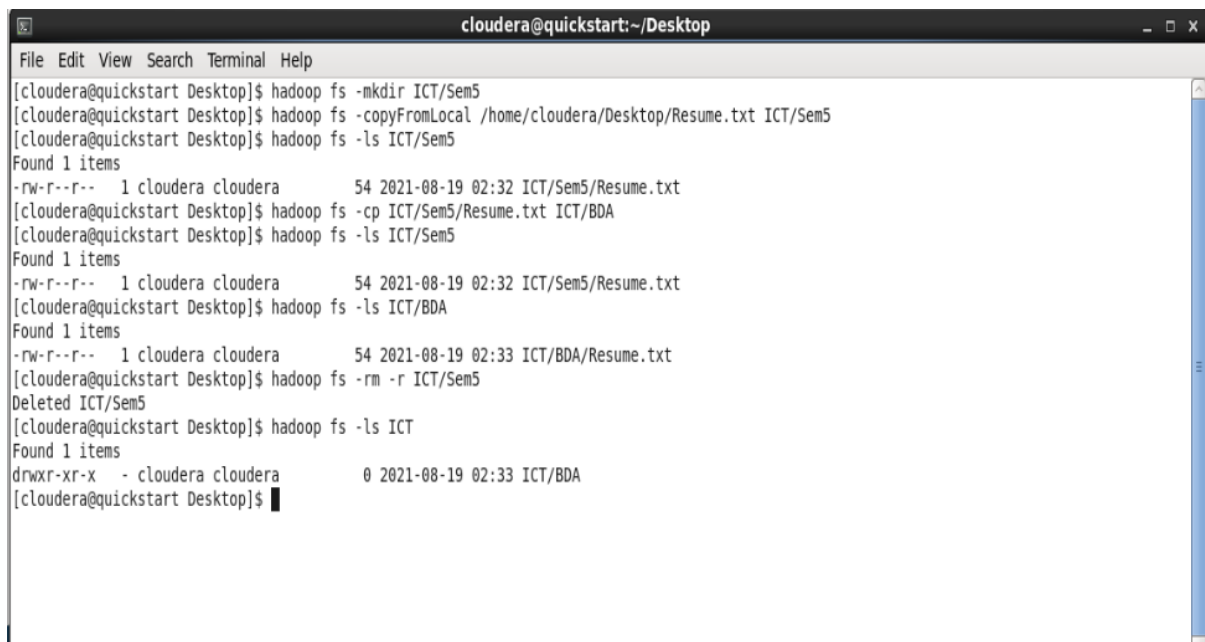
```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -ls smitrpatel/ICT/BDA
Found 1 items
-rw-r--r--  1 cloudera cloudera      54 2021-08-19 02:06 smitrpatel/ICT/BDA/
Resume.txt
[cloudera@quickstart Desktop]$ hadoop fs -cat smitrpatel/ICT/BDA/Resume.txt
Name : SMIT R PATEL
Age  : 21
Address : Washington DC
[cloudera@quickstart Desktop]$
```

B. Create another directory <Branch> in ICT directory copy the resume in sem-5 file here, and delete sem-5 directory.



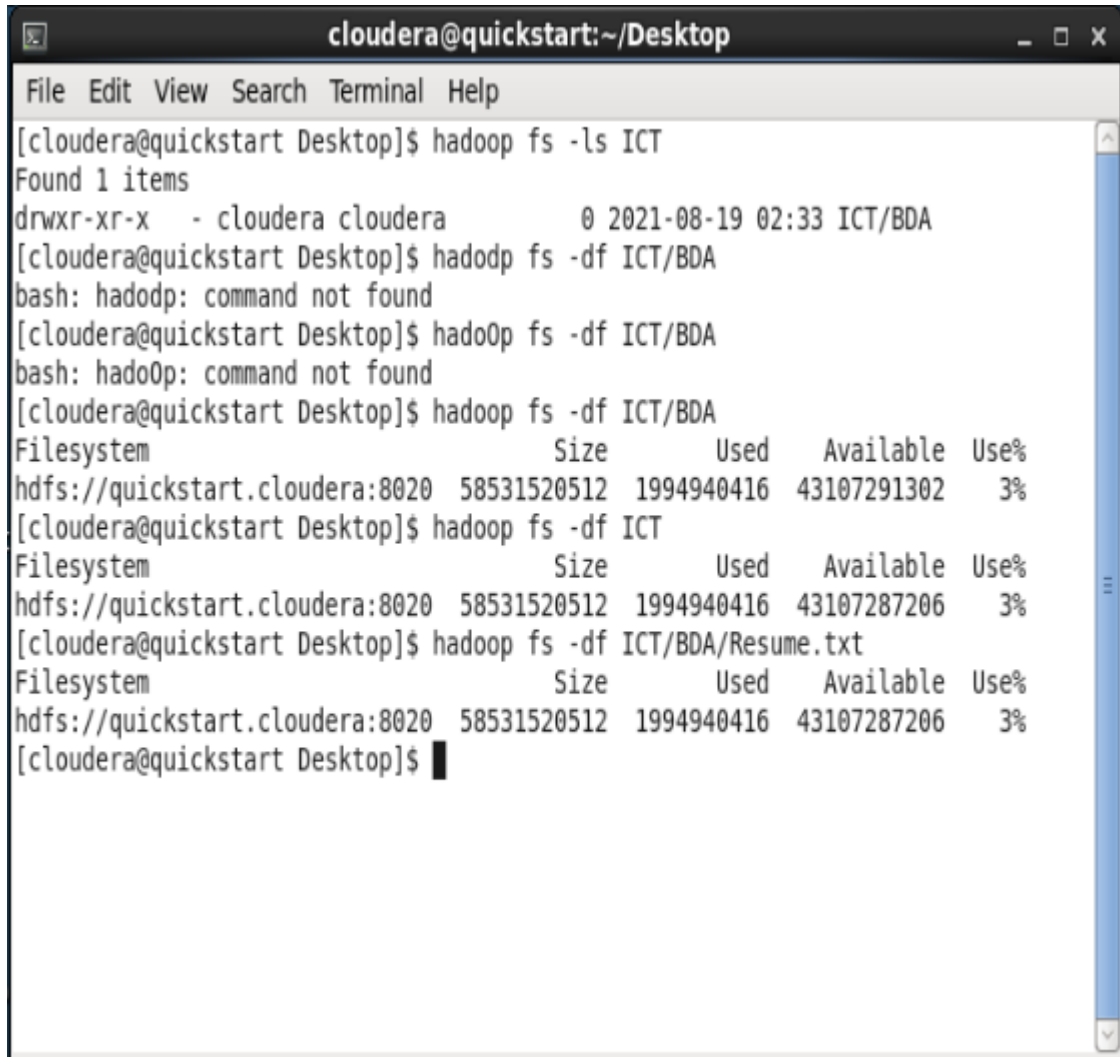
```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT
[cloudera@quickstart Desktop]$

cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -rm -r ICT/Sem5
Deleted ICT/Sem5
[cloudera@quickstart Desktop]$ hadoop fs -ls
Found 18 items
drwxr-xr-x - cloudera cloudera 0 2021-07-26 02:32 Dhrumil
-rw-r--r-- 1 cloudera cloudera 0 2021-07-26 02:05 DhrumilXYZ.txt
-rw-r--r-- 1 cloudera cloudera 0 2021-07-19 03:28 Documentsmy_details.txt
drwxr-xr-x - cloudera cloudera 0 2021-08-19 02:12 ICT
-rw-r--r-- 1 cloudera cloudera 0 2021-08-17 02:20 Just_Empty_File.txt
drwxr-xr-x - cloudera cloudera 0 2021-08-09 21:17 Prac6
drwxr-xr-x - cloudera cloudera 0 2021-08-10 00:26 Practical6
-rw-r--r-- 1 cloudera cloudera 53024484 2021-08-09 20:12 SalesJan2009.csv.zip
-rw-r--r-- 1 cloudera cloudera 0 2021-08-12 01:50 XYZ.txt
-rw-r--r-- 1 cloudera cloudera 0 2021-08-12 01:50 aaa.txt
-rw-r--r-- 1 cloudera cloudera 91162 2021-03-11 22:25 ad_analysis.csv
drwxr-xr-x - cloudera cloudera 0 2021-07-19 03:19 dhrumil
-rw-r--r-- 1 cloudera cloudera 0 2021-07-19 03:04 my_details
drwxr-xr-x - cloudera cloudera 0 2021-08-09 21:21 pig_output_sales
drwxr-xr-x - cloudera cloudera 0 2021-08-10 01:15 pig_output_sales1
drwxr-xr-x - cloudera cloudera 0 2021-08-12 22:56 prac_7
drwxr-xr-x - cloudera cloudera 0 2021-08-16 20:15 prac_8
drwxr-xr-x - cloudera cloudera 0 2021-08-19 01:35 smitpatel
```



```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -mkdir ICT/Sem5
[cloudera@quickstart Desktop]$ hadoop fs -copyFromLocal /home/cloudera/Desktop/Resume.txt ICT/Sem5
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT/Sem5
Found 1 items
-rw-r--r-- 1 cloudera cloudera 54 2021-08-19 02:32 ICT/Sem5/Resume.txt
[cloudera@quickstart Desktop]$ hadoop fs -cp ICT/Sem5/Resume.txt ICT/BDA
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT/Sem5
Found 1 items
-rw-r--r-- 1 cloudera cloudera 54 2021-08-19 02:32 ICT/Sem5/Resume.txt
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT/BDA
Found 1 items
-rw-r--r-- 1 cloudera cloudera 54 2021-08-19 02:33 ICT/BDA/Resume.txt
[cloudera@quickstart Desktop]$ hadoop fs -rm -r ICT/Sem5
Deleted ICT/Sem5
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT
Found 1 items
drwxr-xr-x - cloudera cloudera 0 2021-08-19 02:33 ICT/BDA
[cloudera@quickstart Desktop]$
```

C. Check all above created file and directories size.

A terminal window titled "cloudera@quickstart:~/Desktop" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
[cloudera@quickstart Desktop]$ hadoop fs -ls ICT
Found 1 items
drwxr-xr-x  - cloudera cloudera          0 2021-08-19 02:33 ICT/BDA
[cloudera@quickstart Desktop]$ hadodp fs -df ICT/BDA
bash: hadodp: command not found
[cloudera@quickstart Desktop]$ hadoop fs -df ICT/BDA
bash: hadoop: command not found
[cloudera@quickstart Desktop]$ hadoop fs -df ICT/BDA
Filesystem                                Size          Used    Available  Use%
hdfs://quickstart.cloudera:8020 58531520512 1994940416 43107291302    3%
[cloudera@quickstart Desktop]$ hadoop fs -df ICT
Filesystem                                Size          Used    Available  Use%
hdfs://quickstart.cloudera:8020 58531520512 1994940416 43107287206    3%
[cloudera@quickstart Desktop]$ hadoop fs -df ICT/BDA/Resume.txt
Filesystem                                Size          Used    Available  Use%
hdfs://quickstart.cloudera:8020 58531520512 1994940416 43107287206    3%
[cloudera@quickstart Desktop]$
```

D. Check the total size of the directory.

A terminal window titled "cloudera@quickstart:~/Desktop" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command "hadoop fs -du ICT" being executed, which returns the output "54 54 ICT/BDA". The prompt "[cloudera@quickstart Desktop]" is visible at the end of the line.

```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -du ICT
54 54 ICT/BDA
[cloudera@quickstart Desktop]$
```


3. EXTRAS:

Also try the `-setrep` and the `-chmod` command.

A terminal window titled "cloudera@quickstart:~/Desktop" with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the command "hadoop fs -setrep -w 10 ICT/BDA/Resume.txt" being executed. The output is "Replication 10 set: ICT/BDA/Resume.txt" followed by "Waiting for ICT/BDA/Resume.txt" and a cursor.

```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -setrep -w 10 ICT/BDA/Resume.txt
Replication 10 set: ICT/BDA/Resume.txt
Waiting for ICT/BDA/Resume.txt ....
```

```
cloudera@quickstart:~/Desktop
File Edit View Search Terminal Help
[cloudera@quickstart Desktop]$ hadoop fs -chmod 777 ICT
[cloudera@quickstart Desktop]$ hadoop fs -ls
Found 18 items
drwxr-xr-x  - cloudera cloudera      0 2021-07-26 02:32 Dhrumil
-rw-r--r--  1 cloudera cloudera      0 2021-07-26 02:05 DhrumilXYZ.txt
-rw-r--r--  1 cloudera cloudera      0 2021-07-19 03:28 Documentsmy_details
.txt
drwxrwxrwx  - cloudera cloudera      0 2021-08-19 02:34 ICT
-rw-r--r--  1 cloudera cloudera      0 2021-08-17 02:20 Just_Empty_File.txt
drwxr-xr-x  - cloudera cloudera      0 2021-08-09 21:17 Prac6
drwxr-xr-x  - cloudera cloudera      0 2021-08-10 00:26 Practical6
-rw-r--r--  1 cloudera cloudera 53024484 2021-08-09 20:12 SalesJan2009.csv.zip
-rw-r--r--  1 cloudera cloudera      0 2021-08-12 01:50 XYZ.txt
-rw-r--r--  1 cloudera cloudera      0 2021-08-12 01:50 aaa.txt
-rw-r--r--  1 cloudera cloudera 91162 2021-03-11 22:25 ad_analysis.csv
drwxr-xr-x  - cloudera cloudera      0 2021-07-19 03:19 dhrumil
-rw-r--r--  1 cloudera cloudera      0 2021-07-19 03:04 my_details
drwxr-xr-x  - cloudera cloudera      0 2021-08-09 21:21 pig_output_sales
drwxr-xr-x  - cloudera cloudera      0 2021-08-10 01:15 pig_output_sales1
drwxr-xr-x  - cloudera cloudera      0 2021-08-12 22:56 prac_7
drwxr-xr-x  - cloudera cloudera      0 2021-08-16 20:15 prac_8
drwxr-xr-x  - cloudera cloudera      0 2021-08-19 01:35 smitrpatel
[cloudera@quickstart Desktop]$ S
```