How to create and Manage Snapshot in HDFS.

*Take SSH to Login into any cluster node.

   # ssh root@Cluster ip address

Step 1: First enable the directory for a snapshot.

  su – hdfs

  #This command used to allow snapshot

   hdfs dfsadmin -allowSnapshot /user/Bharat

```
[hdfs@master ~]$ hdfs dfsadmin -allowSnapshot /user/Bharat
Allowing snapshot on /user/Bharat succeeded
```

Step 2: to check the directories which are enabled for snapshot.

  #This command use for check created SnapShot

   hdfs lsSnapshottableDir

```
[hdfs@master ~]$ hdfs lsSnapshottableDir
drwxr-xr-x 0 root supergroup 0 2023-06-27 14:48 1 65536 /tmp/firstsnapshot
drwxr-xr-x 0 hdfs supergroup 0 2023-07-01 07:51 0 65536 /user/Bharat
drwxr-xr-x 0 root root       0 2023-07-01 06:27 1 65536 /user/mukesh
```

Step 3: now take a snapshot of the given directory.

   hdfs dfs -createSnapshot /user/Bharat

hdfs@master:~

```
[hdfs@master ~]$ hdfs dfs -createSnapshot /user/Bharat
Created snapshot /user/Bharat/.snapshot/s20230701-080300.494
```

Step 4: to check if snapshot has been taken or not.

   hdfs dfs -ls /user/Bharat/.snapshot

```
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat/.snapshot
Found 1 items
drwxr-xr-x   - hdfs supergroup          0 2023-07-01 08:03 /user/Bharat/.snapshot/s20230701-080300.494
```

Note : Don't give space between path and .snapshot directory. It is a hidden directory in hdfs. then not showing snapshot there is showing directory files only

```
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat/ .snapshot
Found 4 items
-rw-r--r--   3 hdfs supergroup          0 2023-07-01 07:51 /user/Bharat/itgy
an.txt
-rw-r--r--   3 hdfs supergroup         30 2023-07-01 07:51 /user/Bharat/itgy
an1.txt
-rw-r--r--   3 hdfs supergroup         42 2023-07-01 07:51 /user/Bharat/itgy
an2.txt
-rw-r--r--   3 hdfs supergroup         54 2023-07-01 07:51 /user/Bharat/itgy
an3.txt
```

Step 4: now try to rename the default filename of the snapshot.

hdfs dfs -renameSnapshot /user/Bharat s20230701-080300.494 iTgyanSnapshot

```
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat/.snapshot
Found 1 items
drwxr-xr-x   - hdfs supergroup          0 2023-07-01 08:03 /user/Bharat/.snapshot/iTgyanSnapshot
```

Step 5: to view content of the snapshot.

```
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat/.snapshot/iTgyanSnapshot
Found 4 items
-rw-r--r--   3 hdfs supergroup          0 2023-07-01 07:51 /user/Bharat/.snapshot/iTgy
anSnapshot/itgyan.txt
-rw-r--r--   3 hdfs supergroup         30 2023-07-01 07:51 /user/Bharat/.snapshot/iTgy
anSnapshot/itgyan1.txt
-rw-r--r--   3 hdfs supergroup         42 2023-07-01 07:51 /user/Bharat/.snapshot/iTgy
anSnapshot/itgyan2.txt
-rw-r--r--   3 hdfs supergroup         54 2023-07-01 07:51 /user/Bharat/.snapshot/iTgy
anSnapshot/itgyan3.txt
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat
Found 4 items
-rw-r--r--   3 hdfs supergroup          0 2023-07-01 07:51 /user/Bharat/itgyan.txt
-rw-r--r--   3 hdfs supergroup         30 2023-07-01 07:51 /user/Bharat/itgyan1.txt
-rw-r--r--   3 hdfs supergroup         42 2023-07-01 07:51 /user/Bharat/itgyan2.txt
-rw-r--r--   3 hdfs supergroup         54 2023-07-01 07:51 /user/Bharat/itgyan3.txt
```

description:

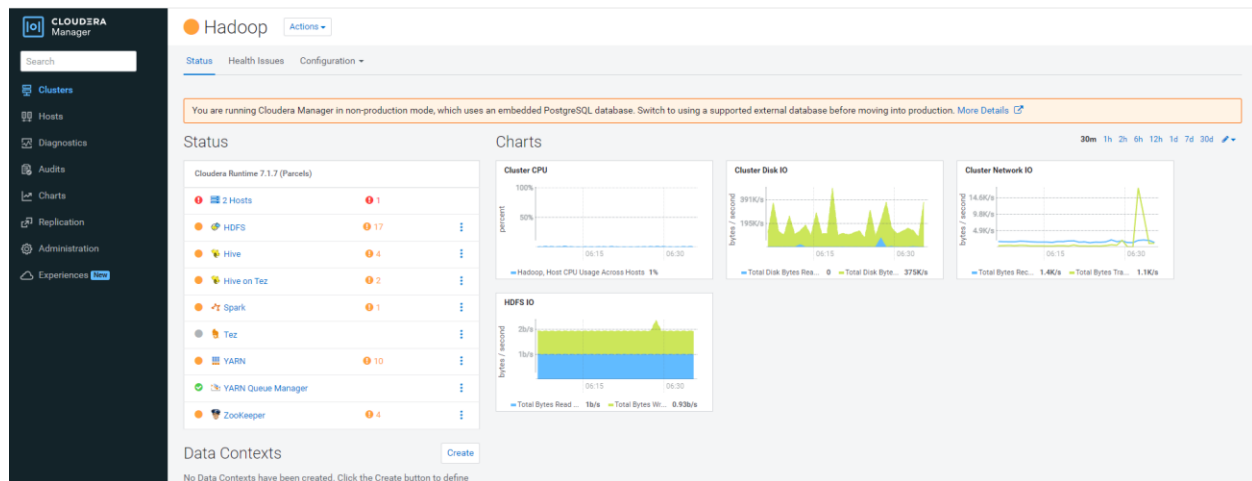Both content of the snapshot and current path are exactly same.

Step 6: how to delete a snapshot.
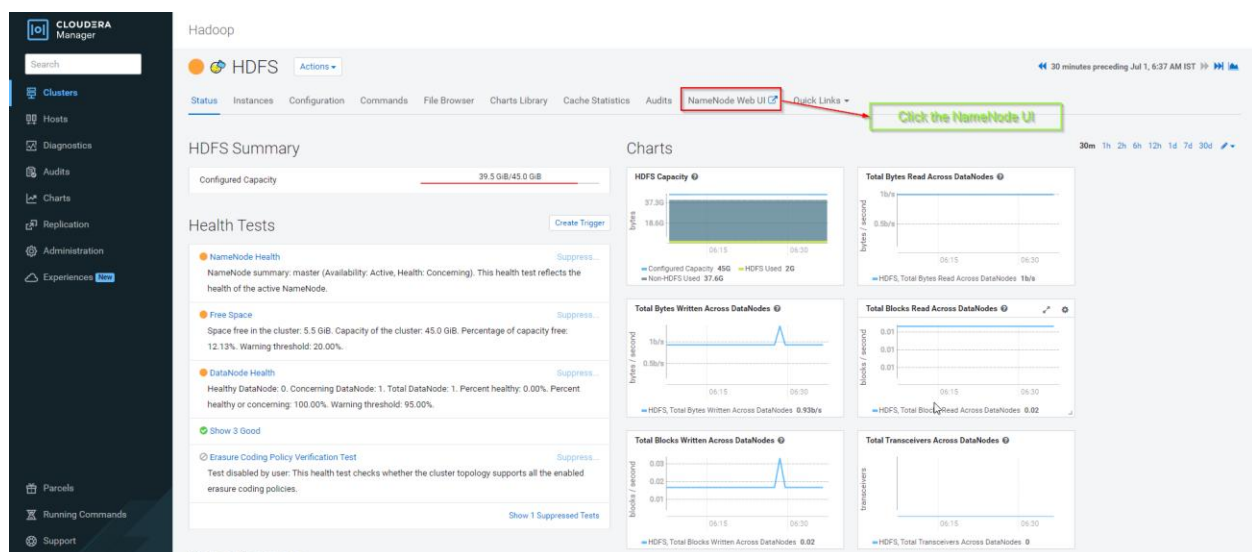
hdfs dfs -deleteSnapshot /user/Bharat iTgyanSnapshot

```
[hdfs@master ~]$ hdfs dfs -deleteSnapshot /user/Bharat iTgyanSnapshot
[hdfs@master ~]$ hdfs dfs -ls /user/Bharat/.snapshot
[hdfs@master ~]$
```

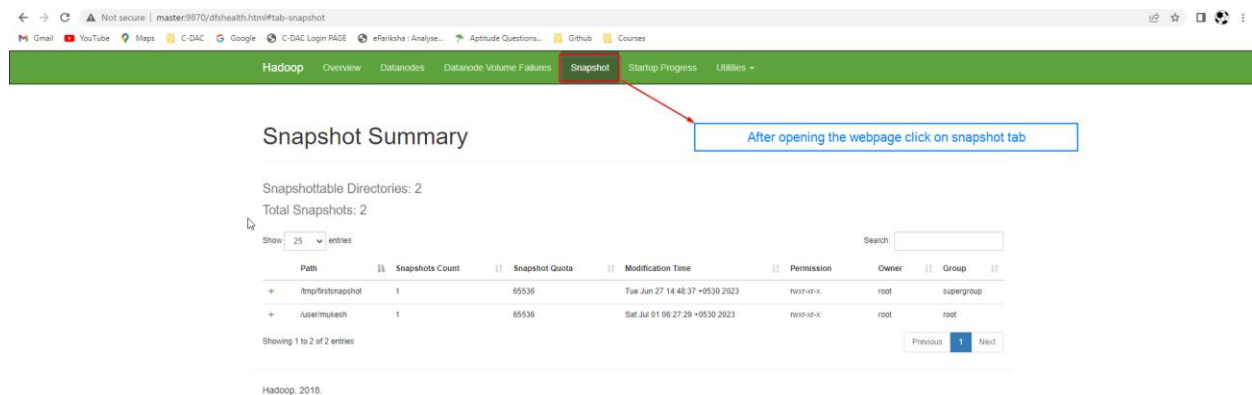Step 7: how to check snapshot in webUI

1) login in cloudera admin portal.

2) Select our cluster and click on HDFS.

3) After opening the Name node webpage UI click on snapshot tab.
 And check there we created snapshot available or not.

4) Then click on + sign and check snapshot in details.

Note: this UI does not shows the deleted snapshot

Result :

You have now: Enabled an HDFS directory for snapshots and then created, viewed, renamed and deleted a snapshot.