


1. Single node/Multiple node Hadoop Installation.

The screenshot shows a terminal window titled "Activities | Terminal". The user is logged in as "hdoop@rohit-VirtualBox: ~/hadoop-3.2.3/sbin". The terminal output shows the following steps:

```
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
rohit@rohit-VirtualBox:~$ sudo apt update  
[sudo] password for rohit:  
Hit:1 http://in.archive.ubuntu.com/ubuntu focal InRelease  
Hit:2 http://in.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:3 http://in.archive.ubuntu.com/ubuntu focal-backports InRelease  
Get:4 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]  
Fetched 114 kB in 3s (33.0 kB/s)  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
146 packages can be upgraded. Run 'apt list --upgradable' to see them.  
rohit@rohit-VirtualBox:~$ sudo apt install openjdk-8-jdk -y  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java  
  libatk-wrapper-java-jni libice-dev libpthread-stubs0-dev libsndev  
  libx11-dev libxau-dev libxcb1-dev libxdmcp-dev libxt-dev  
  openjdk-8-jdk-headless openjdk-8-jre openjdk-8-jre-headless  
  xirproc-core-dev xilproto-dev xorg-sgml-doctools xtrans-dev  
Suggested packages:  
  default-jre libice-doc libsnd-dev libx11-doc libxcb-doc libxt-doc  
  openjdk-8-demo openjdk-8-source visualvm icdtca-8-plugin  
  fonts-ipafont-gothic fonts-ipafont-mincho fonts-wqy-microhei  
  fonts-wqy-zenhei  
The following NEW packages will be installed:  
  ca-certificates-java fonts-dejavu-extra java-common libatk-wrapper-java  
  libatk-wrapper-java-jni libice-dev libpthread-stubs0-dev libsndev  
  libx11-dev libxau-dev libxcb1-dev libxdmcp-dev libxt-dev openjdk-8-jdk  
  openjdk-8-jdk-headless openjdk-8-jre openjdk-8-jre-headless  
  xilproto-core-dev xilproto-dev xorg-sgml-doctools xtrans-dev  
8 upgraded, 21 newly installed, 0 to remove and 146 not upgraded.  
Need to get 43.5 MB of archives.  
After this operation, 162 MB of additional disk space will be used.  
Get:1 http://in.archive.ubuntu.com/ubuntu focal/main amd64 java-common all 0.72 [6,816 B]  
Get:2 http://in.archive.ubuntu.com/ubuntu focal-updates/universe amd64 openjdk-8-jre-headless b0312-b07-0ubuntu1-20.04 [28.2 MB]  
Get:3 http://in.archive.ubuntu.com/ubuntu focal/main amd64 ca-certificates-java all 20190405ubuntu1 [12.2 kB]  
Get:4 http://in.archive.ubuntu.com/ubuntu focal/main amd64 fonts-dejavu-extra all 2.37-1 [1,953 kB]  
Get:5 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libatk-wrapper-java all 0.37-1.1 [53.0 kB]  
Get:6 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libatk-wrapper-java-jni amd64 0.37-1.1 [45.1 kB]  
Get:7 http://in.archive.ubuntu.com/ubuntu focal/main amd64 xorg-sgml-doctools all 1:1.11-1 [12.9 kB]  
Get:8 http://in.archive.ubuntu.com/ubuntu focal/main amd64 xilproto-dev all 2019-2-ubuntu1 [594 kB]  
Get:9 http://in.archive.ubuntu.com/ubuntu focal/main amd64 xilproto-core-dev all 2019-2-ubuntu1 [2,628 B]  
Get:10 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libice-dev amd64 2:1.0.10-0ubuntu1 [47.8 kB]  
Get:11 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libpthread-stubs0-dev amd64 0.4-1 [5,384 B]  
Get:12 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libsnd-dev amd64 2.1.2-1.3-1 [17.0 kB]  
Get:13 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libxau-dev amd64 1:1.0.9-0ubuntu1 [9,552 B]  
Get:14 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libxdmcp-dev amd64 1:1.1.3-0ubuntu1 [25.3 kB]  
Get:15 http://in.archive.ubuntu.com/ubuntu focal/main amd64 xtrans-dev all 1.4.0-1 [68.9 kB]  
Get:16 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libxcb1-dev amd64 1.14-2 [80.5 kB]
```



```

Activities Terminal May 16:13
hadoop@rohit-VirtualBox: ~/hadoop-3.2.3/sbin

Processing triggers for ufw (0.36-6ubuntu1) ...
rohit@rohit-VirtualBox:~$ sudo adduser hadoop
Adding user 'hadoop' ...
Adding new group 'hadoop' (1001) ...
Adding new user 'hadoop' (1001) with group 'hadoop' ...
Creating home directory '/home/hadoop' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for hadoop
Enter the new value, or press ENTER for the default
  Full Name []: rohit thomare
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
rohit@rohit-VirtualBox:~$ su - hadoop
Password:
hadoop@rohit-VirtualBox:~$ ssh-keygen -t rsa -P '' -f ~/.ssh/id_rsa
Generating public/private rsa key pair.
Created directory '/home/hadoop/.ssh'.
Your identification has been saved in /home/hadoop/.ssh/id_rsa
Your public key has been saved in /home/hadoop/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:fZBk5PMuCWGtcmshCvBL15TVEvombtmN3lpisw5TEW hadoop@rohit-VirtualBox
The key's randomart image is:
+---[RSA 3072]-----+
|      .O.O..      |
|      +..+       |
|      +...O      |
| E . *.+OO      |
| O  +o+5.O..    |
| O  .+O..+      |
| O  O. + O..    |
| +O+ =. . + O   |
|o+OBo  o        |
+---[SHA256]-----+
hadoop@rohit-VirtualBox:~$ cat ~/.ssh/id_rsa.pub > ~/.ssh/authorized_keys
hadoop@rohit-VirtualBox:~$ chmod 660 ~/.ssh/authorized_keys
hadoop@rohit-VirtualBox:~$ ssh localhost
The authenticity of host 'localhost (127.0.0.1)' can't be established.
ECDSA key fingerprint is SHA256:hK7dIB1E15PurPLhcd6dk2IBD1M7TA+03gkw317+UuH8.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'localhost' (ECDSA) to the list of known hosts.
Welcome to Ubuntu 20.04.4 LTS (GNU/Linux 5.13.0-48-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

138 updates can be applied immediately.
105 of these updates are standard security updates.

```



```
Activities Terminal May 7 16:17
hadoop@rohit-VirtualBox: ~/hadoop-3.2.3/sbin

2022-05-07 15:39:05,189 INFO namenode.FSNamesystem: Stopping services started for active state
2022-05-07 15:39:05,190 INFO namenode.FSNamesystem: Stopping services started for standby state
2022-05-07 15:39:05,226 INFO namenode.FSImage: FSImageSaver clean checkpoint: txid=0 when meet shutdown.
2022-05-07 15:39:05,228 INFO namenode.NameNode: SHUTDOWN_MSG:
/*****
SHUTDOWN_MSG: Shutting down NameNode at rohit-VirtualBox/127.0.1.1
*****/
hadoop@rohit-VirtualBox:~$ ./hadoop-3.2.3/sbin/
-bash: /home/hadoop/hadoop-3.2.3/sbin/: Is a directory
hadoop@rohit-VirtualBox:~$ cd ~/hadoop-3.2.3/sbin
-bash: cd: -: invalid option
cd: usage: cd [-L|[-P [-e]] [-@]] [dir]
hadoop@rohit-VirtualBox:~$ cd ~/hadoop-3.2.3/sbin
hadoop@rohit-VirtualBox:~/hadoop-3.2.3/sbin$ ls -lsr
total 112
4 -rwxr-xr-x 1 hadoop hadoop 2328 Mar 20 07:13 yarn-daemons.sh
4 -rwxr-xr-x 1 hadoop hadoop 1814 Mar 20 07:13 yarn-daemon.sh
4 -rwxr-xr-x 1 hadoop hadoop 1982 Mar 20 06:49 workers.sh
4 -rwxr-xr-x 1 hadoop hadoop 3083 Mar 20 07:13 stop-yarn.sh
4 -rwxr-xr-x 1 hadoop hadoop 1642 Mar 20 07:13 stop-yarn.cmd
4 -rwxr-xr-x 1 hadoop hadoop 1756 Mar 20 06:53 stop-secure-dns.sh
4 -rwxr-xr-x 1 hadoop hadoop 3898 Mar 20 06:53 stop-dfs.sh
4 -rwxr-xr-x 1 hadoop hadoop 1455 Mar 20 06:53 stop-dfs.cmd
4 -rwxr-xr-x 1 hadoop hadoop 1783 Mar 20 06:53 stop-balancer.sh
4 -rwxr-xr-x 1 hadoop hadoop 2166 Mar 20 06:49 stop-all.sh
4 -rwxr-xr-x 1 hadoop hadoop 1770 Mar 20 06:49 stop-all.cmd
4 -rwxr-xr-x 1 hadoop hadoop 3342 Mar 20 07:13 start-yarn.sh
4 -rwxr-xr-x 1 hadoop hadoop 1571 Mar 20 07:13 start-yarn.cmd
4 -rwxr-xr-x 1 hadoop hadoop 1793 Mar 20 06:53 start-secure-dns.sh
4 -rwxr-xr-x 1 hadoop hadoop 5170 Mar 20 06:53 start-dfs.sh
4 -rwxr-xr-x 1 hadoop hadoop 1401 Mar 20 06:53 start-dfs.cmd
4 -rwxr-xr-x 1 hadoop hadoop 1880 Mar 20 06:53 start-balancer.sh
4 -rwxr-xr-x 1 hadoop hadoop 2221 Mar 20 06:49 start-all.sh
4 -rwxr-xr-x 1 hadoop hadoop 1779 Mar 20 06:49 start-all.cmd
4 -rwxr-xr-x 1 hadoop hadoop 2086 Mar 20 06:53 refresh-namenodes.sh
4 -rwxr-xr-x 1 hadoop hadoop 1841 Mar 20 07:13 federation-statestore
4 -rwxr-xr-x 1 hadoop hadoop 1500 Mar 20 06:50 kms.sh
4 -rwxr-xr-x 1 hadoop hadoop 1542 Mar 20 06:54 httpfs.sh
4 -rwxr-xr-x 1 hadoop hadoop 2522 Mar 20 06:49 hadoop-daemons.sh
4 -rwxr-xr-x 1 hadoop hadoop 1983 Mar 20 06:49 hadoop-daemon.sh
4 -rwxr-xr-x 4 hadoop hadoop 4696 Mar 20 07:13 federation-statestore
4 -rwxr-xr-x 1 hadoop hadoop 2756 Mar 20 06:53 distribute-exclude.sh
hadoop@rohit-VirtualBox:~/hadoop-3.2.3/sbin$ ./start-dfs.sh
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [rohit-VirtualBox]
rohit-VirtualBox: Warning: Permanently added 'rohit-virtualbox' (ECDSA) to the list of known hosts.
2022-05-07 15:50:03,840 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
hadoop@rohit-VirtualBox:~/hadoop-3.2.3/sbin$ ./stop-yarn.sh
Stopping node-managers
Stopping resourcemanager
hadoop@rohit-VirtualBox:~/hadoop-3.2.3/sbin$ ./start-dfs.sh
Starting namenodes on [localhost]
localhost: namenode is running as process 9586. Stop it first and ensure /tmp/hadoop-hadoop-namenode.pid file is empty before retry.
```

Running Hadoop on Localhost:

Activities Terminal May 9 00:06

Namesnode information x WhatsApp Web x +

localhost:9870/dfshealth.html#tab-overview

Hadoop Overview Datanodes Datanode Volume Failures Snapshot Startup Progress Utilities

Overview 'localhost:9000' (active)

Started:	Mon May 09 00:04:23 +0530 2022
Version:	3.2.3, rabe5358143720085498613d399be3bbf01e0f131
Compiled:	Sun Mar 20 06:48:00 +0530 2022 by ubuntu from branch-3.2.3
Cluster ID:	CID-4ff9ca16-508f-44f2-8b6d-e4e7ee99c8f0
Block Pool ID:	BP-1663392734-127.0.1.1-1651918144113

Summary

Security is off.

Safe mode is ON. The reported blocks 6 has reached the safe mode. Safe mode will be turned off automatically.

18 files and directories, 6 blocks (6 replicated blocks)

Heap Memory used 44.43 MB of 71.69 MB Heap Memory

Non Heap Memory used 49.69 MB of 50.9 MB

Configured Capacity:	
Configured Remote Capacity:	
DFS Used:	
Non DFS Used:	13.87 GB
DFS Remaining:	41.45 GB (71.08%)
Block Pool Used:	488 KB (0%)
DataNodes usages% (Min/Median/Max/stdDev):	0.00% / 0.00% / 0.00% / 0.00%

hadoop@rohit-VirtualBox:~\$

```
bash: export: 'HADOOP_OPTS-Djava.library.path=/home/hadoop/hadoop-3.2.3/lib/nativ': not a valid identifier
hadoop@rohit-VirtualBox:~$ su - hadoop
Password:
bash: export: 'HADOOP_OPTS-Djava.library.path=/home/hadoop/hadoop-3.2.3/lib/nativ': not a valid identifier
hadoop@rohit-VirtualBox:~$ start-dfs.sh
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [rohit-VirtualBox]
2022-05-09 00:04:56,316 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform...
using builtin-java classes where applicable
hadoop@rohit-VirtualBox:~$
```

Group A:

2. Design a distributed application using MapReduce(Using Java) which processes a log file of a system. List out the users who have logged for maximum period on the system. Use simple log file from the Internet and process it using a pseudo distribution mode on Hadoop platform.

```
Activities Terminal May 7 20:41
rohit@rohit-VirtualBox: ~
bash: export: 'HADOOP_OPTS-Djava.library.path=/home/hadoop/hadoop-3.2.3/lib/nativ': not a valid identifier
rohit@rohit-VirtualBox:~$ su - hadoop
Password:
-bash: export: 'HADOOP_OPTS-Djava.library.path=/home/hadoop/hadoop-3.2.3/lib/nativ': not a valid identifier
hadoop@rohit-VirtualBox:~$ sudo mkdir analyzeLogs
[sudo] password for hadoop:
hadoop@rohit-VirtualBox:~$ ls
analyzeLogs  dfsdata  hadoop-3.2.3  hadoop-3.2.3.tar.gz  tmpdata
hadoop@rohit-VirtualBox:~$ sudo chmod -R 777 analyzeLogs/
hadoop@rohit-VirtualBox:~$ cd
hadoop@rohit-VirtualBox:~$ ls
analyzeLogs  dfsdata  hadoop-3.2.3  hadoop-3.2.3.tar.gz  tmpdata
hadoop@rohit-VirtualBox:~$ cd ..
hadoop@rohit-VirtualBox:~/home$ pwd
/home
hadoop@rohit-VirtualBox:~/home$ ls
hadoop  rohit
hadoop@rohit-VirtualBox:~/home$ cd
hadoop@rohit-VirtualBox:~$ pwd
/home/hadoop
hadoop@rohit-VirtualBox:~$ sudo chown -R hadoop analyzeLogs/
hadoop@rohit-VirtualBox:~$ ls
analyzeLogs  dfsdata  hadoop-3.2.3  hadoop-3.2.3.tar.gz  tmpdata
hadoop@rohit-VirtualBox:~$ cd analyzeLogs/
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
hadoop@rohit-VirtualBox:~/analyzeLogs$ cd ..
hadoop@rohit-VirtualBox:~$ sudo cp /home/rohit/Desktop/dsdda_lab/assig_2/* ~/analyzeLogs/
cp: -r not specified; omitting directory '/home/rohit/Desktop/dsdda_lab/assig_2/bin'
hadoop@rohit-VirtualBox:~$ ^C
hadoop@rohit-VirtualBox:~$ ^C
hadoop@rohit-VirtualBox:~$ sudo cp /home/rohit/Desktop/dsdda_lab/assig_2/* ~/analyzeLogs/
cp: -r not specified; omitting directory '/home/rohit/Desktop/dsdda_lab/assig_2/bin'
hadoop@rohit-VirtualBox:~$ sudo cp /home/rohit/Desktop/dsdda_lab/assig_2/* ~/analyzeLogs/
cp: -r not specified; omitting directory '/home/rohit/Desktop/dsdda_lab/assig_2/bin'
hadoop@rohit-VirtualBox:~$ sudo cp -r /home/rohit/Desktop/dsdda_lab/assig_2/bin
hadoop@rohit-VirtualBox:~$ ^C
hadoop@rohit-VirtualBox:~$ sudo cp /home/rohit/Desktop/dsdda_lab/assig_2/* ~/analyzeLogs/
cp: -r not specified; omitting directory '/home/rohit/Desktop/dsdda_lab/assig_2/bin'
hadoop@rohit-VirtualBox:~$ sudo cp -r /home/rohit/Desktop/dsdda_lab/assig_2/* ~/analyzeLogs/
cp: -r not specified; omitting directory '/home/rohit/Desktop/dsdda_lab/assig_2/bin'
hadoop@rohit-VirtualBox:~$ cd analyzeLogs/
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.txt  bin  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ rm bin
rm: cannot remove 'bin': Is a directory
hadoop@rohit-VirtualBox:~/analyzeLogs$ unlike bin
unlike: command not found
hadoop@rohit-VirtualBox:~/analyzeLogs$ rm -d bin
rm: remove write-protected directory 'bin'? yes
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.txt  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo cp -r /home/rohit/Downloads/hadoop-mapreduce-example-file.txt ~/analyzeLogs/
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
```

```
Activities Terminal May 7 20:42
rohit@rohit-VirtualBox: ~
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.txt  bin  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ rm bin
rm: cannot remove 'bin': Is a directory
hadoop@rohit-VirtualBox:~/analyzeLogs$ unlike bin
unlike: command not found
hadoop@rohit-VirtualBox:~/analyzeLogs$ rm -d bin
rm: remove write-protected directory 'bin'? yes
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.txt  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo cp -r /home/rohit/Downloads/hadoop-mapreduce-example-file.txt ~/analyzeLogs/
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.txt  hadoop-mapreduce-example-file.txt  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ pwd
/home/hadoop/analyzeLogs
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls
access_log_short.csv  access_log_short.txt  hadoop-mapreduce-example-file.txt  SalesCountryDriver.java  SalesCountryReducer.java  SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls -ltr
total 312
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt
-rw-r--r-- 1 root root 82 May 7 18:34 .lock.access_log_short.csv#
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryReducer.java
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryDriver.java
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chmod
[sudo] password for hadoop:
Sorry, try again.
[sudo] password for hadoop:
chmod: missing operand
Try 'chmod --help' for more information.
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chond +r *.*
sudo: chond: command not found
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chond +r *.*
hadoop@rohit-VirtualBox:~/analyzeLogs$ pwd
/home/hadoop/analyzeLogs
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls -ltr
total 312
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt
```

```
Activities Terminal May 7 20:43 rohit@rohit-VirtualBox: ~  
total 312  
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java  
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java  
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java  
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt  
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt  
-rw-r--r-- 1 rohit rohit 158551 May 7 18:34 access_log_short.csv  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls -al  
total 324  
drwxr-xr-x 2 hadoop root 4096 May 7 18:34 .  
drwxr-xr-x 10 hadoop hadoop 4096 May 7 17:38 ..  
-rw-r--r-- 1 rohit rohit 158551 May 7 18:34 access_log_short.csv  
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt  
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt  
-rw-r--r-- 1 root root 82 May 7 18:34 -lock.access_log_short.csv#  
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java  
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java  
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chmod  
[sudo] password for hadoop:  
Sorry, try again.  
[sudo] password for hadoop:  
chmod: missing operand  
Try 'chmod --help' for more information.  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chmod +r *.*  
sudo: chmod: command not found  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chmod +r *.*  
hadoop@rohit-VirtualBox:~/analyzeLogs$ pwd  
/home/hadoop/analyzeLogs  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls -ltr  
total 312  
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java  
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java  
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java  
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt  
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt  
-rw-r--r-- 1 rohit rohit 158551 May 7 18:34 access_log_short.csv  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls -al  
total 324  
drwxr-xr-x 2 hadoop root 4096 May 7 18:34 .  
drwxr-xr-x 10 hadoop hadoop 4096 May 7 17:38 ..  
-rw-r--r-- 1 rohit rohit 158551 May 7 18:34 access_log_short.csv  
-rw-r--r-- 1 root root 143084 May 7 18:03 access_log_short.txt  
-rw-r--r-- 1 root root 391 May 7 18:18 hadoop-mapreduce-example-file.txt  
-rw-r--r-- 1 rohit rohit 82 May 7 18:34 -lock.access_log_short.csv#  
-rw-r--r-- 1 root root 1367 May 7 18:03 SalesCountryDriver.java  
-rw-r--r-- 1 root root 749 May 7 18:03 SalesCountryReducer.java  
-rw-r--r-- 1 root root 659 May 7 18:03 SalesMapper.java  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo chmod +r *.*  
hadoop@rohit-VirtualBox:~/analyzeLogs$ pwd  
/home/hadoop/analyzeLogs  
hadoop@rohit-VirtualBox:~/analyzeLogs$ export CLASSPATH=$HADOOP_HOME/share/hadoop/mapreduce/hadoop-mapreduce-client-core-2.9.0.jar:$HADOOP_HOME/share/hadoop/mapreduce/hadoop-mapreduce-client-common-2.9.0.jar:$HADOOP_HOME/share/hadoop/common/hadoop-common-2.9.0.jar:~/analyzeLogs/SalesCountry/*:$HADOOP_HOME/lib/*  
hadoop@rohit-VirtualBox:~/analyzeLogs$ javac -d . SalesMapper.java SalesCountryReducer.java SalesCountryDriver.java
```

```
Activities Terminal May 7 20:44 rohit@rohit-VirtualBox: ~  
location: class SalesCountryDriver  
54 errors  
hadoop@rohit-VirtualBox:~/analyzeLogs$ javac -d . SalesMapper.java -cp $(hadoop classpath)  
hadoop@rohit-VirtualBox:~/analyzeLogs$ javac -d . SalesMapper.java SalesCountryReducer.java SalesCountryDriver.java -cp $(hadoop classpath)  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls  
access_log_short.csv access_log_short.txt hadoop-mapreduce-example-file.txt SalesCountry SalesCountryDriver.java SalesCountryReducer.java SalesMapper.java  
hadoop@rohit-VirtualBox:~/analyzeLogs$ cd SalesCountry/  
hadoop@rohit-VirtualBox:~/analyzeLogs/SalesCountry$ ls  
SalesCountryDriver.class SalesCountryReducer.class SalesMapper.class  
hadoop@rohit-VirtualBox:~/analyzeLogs/SalesCountry$ cd ..  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo gedit Manifest.txt  
[sudo] password for hadoop:  
Unable to init server: Could not connect: Connection refused  
(gedit:17990): Gtk-WARNING **: 19:28:12.473: cannot open display:  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo gedit Manifest.txt  
Unable to init server: Could not connect: Connection refused  
(gedit:18008): Gtk-WARNING **: 19:28:35.492: cannot open display:  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar Manifest.txt SalesCountry/*  
SalesCountry/*: no such file or directory  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls  
access_log_short.csv analyzeLogs.jar Manifest.txt SalesCountryDriver.java SalesMapper.java  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar SalesCountry SalesCountryReducer.java SalesCountryDriver.java SalesMapper.java  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar Manifest.txt SalesCountry/*  
SalesCountry/*: no such file or directory  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar Manifest.txt SalesCountry/*.class  
java.io.FileNotFoundException: Manifest.txt (No such file or directory)  
at java.io.FileInputStream.open(Native Method)  
at java.io.FileInputStream.open(FileInputStream.java:195)  
at java.io.FileInputStream.<init>(FileInputStream.java:138)  
at java.io.FileInputStream.<init>(FileInputStream.java:93)  
at sun.tools.jar.Main.run(Main.java:175)  
at sun.tools.jar.Main.main(Main.java:1288)  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar manifest.txt SalesCountry/*.class  
java.io.FileNotFoundException: manifest.txt (No such file or directory)  
at java.io.FileInputStream.open(Native Method)  
at java.io.FileInputStream.open(FileInputStream.java:195)  
at java.io.FileInputStream.<init>(FileInputStream.java:138)  
at java.io.FileInputStream.<init>(FileInputStream.java:93)  
at sun.tools.jar.Main.run(Main.java:175)  
at sun.tools.jar.Main.main(Main.java:1288)  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ^C  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ^C  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo gedit manifest.txt  
[sudo] password for hadoop:  
Unable to init server: Could not connect: Connection refused  
(gedit:18541): Gtk-WARNING **: 19:40:48.500: cannot open display:  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ^C  
hadoop@rohit-VirtualBox:~/analyzeLogs$ sudo nano manifest.txt  
hadoop@rohit-VirtualBox:~/analyzeLogs$ jar -cfm analyzeLogs.jar manifest.txt SalesCountry/*.class  
hadoop@rohit-VirtualBox:~/analyzeLogs$ ls  
access_log_short.csv analyzeLogs.jar manifest.txt SalesCountryDriver.java SalesMapper.java
```



```
Activities Terminal May 7 20:19
hadoop@rohlt-VirtualBox: ~/analyzezlogs

hadoop@rohlt-VirtualBox:~/analyzezlogs$ ls
access_log_short.csv analyzezlogs.jar manifest.txt SalesCountryDriver.java SalesMapper.java
access_log_short.txt hadoop-mapreduce-example-file.txt SalesCountry SalesCountryReducer.java
hadoop@rohlt-VirtualBox:~/analyzezlogs$ sudo start-dfs.sh
sudo: start-dfs.sh: command not found
hadoop@rohlt-VirtualBox:~/analyzezlogs$ start-dfs.sh
Starting namenodes on [localhost]
localhost: namenode is running as process 9586. Stop it first and ensure /tmp/hadoop-hadoop-namenode.pid file is empty before retry.
Starting datanodes
localhost: datanode is running as process 9703. Stop it first and ensure /tmp/hadoop-hadoop-datanode.pid file is empty before retry.
Starting secondary namenodes [rohlt-VirtualBox]
rohlt-VirtualBox: secondarynamenode is running as process 9872. Stop it first and ensure /tmp/hadoop-hadoop-secondarynamenode.pid file is empty before retry.
2022-05-07 19:54:33.178 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
hadoop@rohlt-VirtualBox:~/analyzezlogs$ start-yarn.sh
Starting resourcemanager
resourcemanager is running as process 10761. Stop it first and ensure /tmp/hadoop-hadoop-resourcemanager.pid file is empty before retry.
Starting nodemanagers
localhost: nodemanager is running as process 10881. Stop it first and ensure /tmp/hadoop-hadoop-nodemanager.pid file is empty before retry.
hadoop@rohlt-VirtualBox:~/analyzezlogs$ jps
9872 SecondaryNameNode
10881 NodeManager
9586 NameNode
9703 DataNode
19385 Jps
10761 ResourceManager
hadoop@rohlt-VirtualBox:~/analyzezlogs$ cd analyzezlogs/
-bash: cd: analyzezlogs: No such file or directory
hadoop@rohlt-VirtualBox:~/analyzezlogs$ sudo mkdir ~/input2000
mkdir: invalid option -- '/'
Try 'mkdir --help' for more information.
hadoop@rohlt-VirtualBox:~/analyzezlogs$ sudo mkdir ~/input2000
hadoop@rohlt-VirtualBox:~/analyzezlogs$ ls
access_log_short.csv analyzezlogs.jar manifest.txt SalesCountryDriver.java SalesMapper.java
access_log_short.txt hadoop-mapreduce-example-file.txt SalesCountry SalesCountryReducer.java
hadoop@rohlt-VirtualBox:~/analyzezlogs$ pwd
/home/hadoop/analyzezlogs
hadoop@rohlt-VirtualBox:~/analyzezlogs$ sudo cp -r access_log_short.csv ~/input2000/
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hdfs dfs -put ~/input2000 /
-bash: SHADOOP_HOME/bin/hdfs: No such file or directory
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hdfs dfs -put ~/input2000 /
2022-05-07 20:06:51.231 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hadoop jar analyzezlogs.jar /input2000 /output2000
2022-05-07 20:08:45.248 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
2022-05-07 20:08:48.262 INFO client.RMProxy: Connecting to ResourceManager at /127.0.0.1:8032
2022-05-07 20:08:49.504 INFO client.RMProxy: Connecting to ResourceManager at /127.0.0.1:8032
2022-05-07 20:08:50.624 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with Tool
Runner to remedy this.
2022-05-07 20:08:50.774 INFO mapreduce.JobResourceUploader: Disabling Erasure Coding for path: /tmp/hadoop-yarn/staging/hadoop/.staging/job_1651918975489_0001
2022-05-07 20:08:52.926 INFO mapred.FileInputFormat: Total input files to process : 1
2022-05-07 20:08:53.967 INFO mapreduce.JobSubmitter: number of splits:2
2022-05-07 20:08:54.850 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1651918975489_0001
2022-05-07 20:08:54.853 INFO mapreduce.JobSubmitter: Executing with tokens: []
2022-05-07 20:08:55.879 INFO conf.Configuration: resource-types.xml not found
2022-05-07 20:08:55.880 INFO resource.ResourceUtils: Unable to find 'resource-types.xml'.
```

```
Activities Terminal May 7 20:20
hadoop@rohlt-VirtualBox: ~/analyzezlogs

hadoop@rohlt-VirtualBox:~/analyzezlogs$ sudo cp -r access_log_short.csv ~/input2000/
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hdfs dfs -put ~/input2000 /
-bash: SHADOOP_HOME/bin/hdfs: No such file or directory
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hdfs dfs -put ~/input2000 /
2022-05-07 20:06:51.231 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
hadoop@rohlt-VirtualBox:~/analyzezlogs$ SHADOOP_HOME/bin/hadoop jar analyzezlogs.jar /input2000 /output2000
2022-05-07 20:08:45.248 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
2022-05-07 20:08:48.262 INFO client.RMProxy: Connecting to ResourceManager at /127.0.0.1:8032
2022-05-07 20:08:49.504 INFO client.RMProxy: Connecting to ResourceManager at /127.0.0.1:8032
2022-05-07 20:08:50.624 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with Tool
Runner to remedy this.
2022-05-07 20:08:50.774 INFO mapreduce.JobResourceUploader: Disabling Erasure Coding for path: /tmp/hadoop-yarn/staging/hadoop/.staging/job_1651918975489_0001
2022-05-07 20:08:52.926 INFO mapred.FileInputFormat: Total input files to process : 1
2022-05-07 20:08:53.967 INFO mapreduce.JobSubmitter: number of splits:2
2022-05-07 20:08:54.850 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1651918975489_0001
2022-05-07 20:08:54.853 INFO mapreduce.JobSubmitter: Executing with tokens: []
2022-05-07 20:08:55.879 INFO conf.Configuration: resource-types.xml not found
2022-05-07 20:08:55.880 INFO resource.ResourceUtils: Unable to find 'resource-types.xml'.
2022-05-07 20:08:57.644 INFO impl.YarnClientImpl: Submitted application application_1651918975489_0001
2022-05-07 20:08:57.975 INFO mapreduce.Job: The url to track the job: http://rohlt-VirtualBox:8088/proxy/application_1651918975489_0001/
2022-05-07 20:08:57.979 INFO mapreduce.Job: Running job: job_1651918975489_0001
2022-05-07 20:09:33.805 INFO mapreduce.Job: Job job_1651918975489_0001 running in uber mode : false
2022-05-07 20:09:33.910 INFO mapreduce.Job: map 0% reduce 0%
2022-05-07 20:10:07.292 INFO mapreduce.Job: map 50% reduce 0%
2022-05-07 20:10:08.551 INFO mapreduce.Job: map 100% reduce 0%
2022-05-07 20:10:23.878 INFO mapreduce.Job: map 100% reduce 100%
2022-05-07 20:10:24.960 INFO mapreduce.Job: Job job_1651918975489_0001 completed successfully
2022-05-07 20:10:25.460 INFO mapreduce.Job: Counters: 54

File System Counters
  FILE: Number of bytes read=26771
  FILE: Number of bytes written=762171
  FILE: Number of read operations=0
  FILE: Number of large read operations=0
  FILE: Number of write operations=0
  HDFS: Number of bytes read=162855
  HDFS: Number of bytes written=3838
  HDFS: Number of read operations=11
  HDFS: Number of large read operations=0
  HDFS: Number of write operations=2
  HDFS: Number of bytes read erasure-coded=0

Job Counters
  Launched map tasks=2
  Launched reduce tasks=1
  Data-local map tasks=2
  Total time spent by all maps in occupied slots (ms)=59420
  Total time spent by all reduces in occupied slots (ms)=12203
  Total time spent by all map tasks (ms)=59420
  Total time spent by all reduce tasks (ms)=12203
  Total vcore-millisecods taken by all map tasks=59420
  Total vcore-millisecods taken by all reduce tasks=12203
  Total megabyte-millisecods taken by all map tasks=60846088
  Total megabyte-millisecods taken by all reduce tasks=12495872

Map-Reduce Framework
  Map input records=1294
```

```
Activities Terminal May 7 20:21 hdoop@rohlt-VirtualBox: ~/analyzelogs

2022-05-07 20:10:08,551 INFO mapreduce.Job: map 100% reduce 0%
2022-05-07 20:10:23,878 INFO mapreduce.Job: map 100% reduce 100%
2022-05-07 20:10:24,950 INFO mapreduce.Job: Job job_1651918975489_0001 completed successfully
2022-05-07 20:10:25,468 INFO mapreduce.Job: Counters: 54
File System Counters
  FILE: Number of bytes read=26771
  FILE: Number of bytes written=762171
  FILE: Number of read operations=0
  FILE: Number of large read operations=0
  FILE: Number of write operations=0
  HDFS: Number of bytes read=162855
  HDFS: Number of bytes written=3838
  HDFS: Number of read operations=11
  HDFS: Number of large read operations=0
  HDFS: Number of write operations=2
  HDFS: Number of bytes read erasure-coded=0
Job Counters
  Launched map tasks=2
  Launched reduce tasks=1
  Data-local map tasks=2
  Total time spent by all maps in occupied slots (ms)=59420
  Total time spent by all reduces in occupied slots (ms)=12203
  Total time spent by all map tasks (ms)=59420
  Total time spent by all reduce tasks (ms)=12203
  Total vcore-milliseonds taken by all map tasks=59420
  Total vcore-milliseonds taken by all reduce tasks=12203
  Total megabyte-milliseonds taken by all map tasks=60846080
  Total megabyte-milliseonds taken by all reduce tasks=12495872
Map-Reduce Framework
  Map input records=1294
  Map output records=1294
  Map output bytes=24177
  Map output materialized bytes=26777
  Input split bytes=208
  Combine input records=0
  Combine output records=0
  Reduce input groups=227
  Reduce shuffle bytes=26777
  Reduce input records=1294
  Reduce output records=227
  Spilled Records=2508
  Shuffled Maps =2
  Failed Shuffles=0
  Merged Map outputs=2
  GC time elapsed (ms)=901
  CPU time spent (ms)=4870
  Physical memory (bytes) snapshot=585670656
  Virtual memory (bytes) snapshot=7453257728
  Total committed heap usage (bytes)=435232768
  Peak Map Physical memory (bytes)=231583744
  Peak Map Virtual memory (bytes)=2482176000
  Peak Reduce Physical memory (bytes)=124436480
  Peak Reduce Virtual memory (bytes)=2488905728
Shuffle Errors
```

```
Activities Terminal May 7 20:21 hdoop@rohlt-VirtualBox: ~/analyzelogs

Failed Shuffles=0
Merged Map outputs=2
GC time elapsed (ms)=901
CPU time spent (ms)=4870
Physical memory (bytes) snapshot=585670656
Virtual memory (bytes) snapshot=7453257728
Total committed heap usage (bytes)=435232768
Peak Map Physical memory (bytes)=231583744
Peak Map Virtual memory (bytes)=2482176000
Peak Reduce Physical memory (bytes)=124436480
Peak Reduce Virtual memory (bytes)=2488905728
Shuffle Errors
  BAD_ID=0
  CONNECTION=0
  IO_ERROR=0
  WRONG_LENGTH=0
  WRONG_MAP=0
  WRONG_REDUCE=0
File Input Format Counters
  Bytes Read=162647
File Output Format Counters
  Bytes Written=3838
hdoop@rohlt-VirtualBox: ~/analyzelogs$ SHADOOP_HOME/bin/hdfs dfs -cat /output2000/part-00000
2022-05-07 20:12:47,953 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
10.1.1.236 7
10.1.181.142 14
10.1.232.31 5
10.10.55.142 14
10.102.101.66 1
10.103.184.104 1
10.103.190.81 53
10.103.63.29 1
10.104.73.51 1
10.105.160.183 1
10.108.91.151 1
10.109.21.76 1
10.111.131.40 1
10.111.71.20 8
10.112.227.184 6
10.114.74.30 1
10.115.118.78 1
10.117.224.230 1
10.117.76.22 12
10.118.19.97 1
10.118.250.30 7
10.119.117.132 23
10.119.33.245 1
10.119.74.120 1
10.12.113.198 2
10.12.219.30 1
10.120.165.113 1
10.120.207.127 4
10.123.124.47 1
10.123.35.235 1
```

```
hadoop@rohlt-VirtualBox: ~/analyzeLogs
10.42.208.60 1
10.43.81.13 1
10.46.190.95 10
10.48.81.158 5
10.5.132.217 1
10.5.148.29 1
10.50.226.223 9
10.50.41.216 3
10.52.161.126 1
10.53.58.58 1
10.54.242.54 10
10.54.49.229 1
10.56.48.40 16
10.59.42.194 11
10.6.238.124 6
10.61.147.24 1
10.61.161.218 1
10.61.23.77 8
10.61.232.147 3
10.62.79.165 2
10.63.233.249 7
10.64.224.191 13
10.66.208.82 2
10.69.20.85 26
10.70.105.238 1
10.70.238.46 6
10.72.137.86 6
10.72.208.27 1
10.73.134.9 4
10.73.238.200 1
10.73.60.200 1
10.73.64.91 1
10.74.218.123 1
10.75.116.199 1
10.76.143.30 1
10.76.68.170 16
10.78.95.24 8
10.80.10.131 10
10.80.215.116 17
10.81.134.180 1
10.82.30.199 63
10.82.64.235 1
10.84.236.242 1
10.87.209.46 1
10.87.58.214 1
10.88.204.177 1
10.89.178.62 1
10.89.244.42 1
10.94.196.42 1
10.95.136.211 4
10.95.232.88 1
10.98.156.141 1
10.99.228.224 1
hadoop@rohlt-VirtualBox:~/analyzeLogs$
```

Output on localhost:

Firefox Web Browser

localhost:9870/explorer.html#/input2000

Hadoop Overview Datanodes Datanode Volume Failures Snapshot Startup Progress Utilities

Browse Directory

/input2000

Show 25 entries

Permission Owner

Showing 1 to 1 of 1 entries

Hadoop, 2022.

File information - access_log_short.csv

Download Head the file (first 32K) Tail the file (last 32K)

Block information - Block 0

Block ID: 1073741826

Block Pool ID: BP-1663392734-127.0.1.1-1651918144113

Generation Stamp: 1002

Size: 158551

Availability:

- rohlt-VirtualBox

File contents

```
10.223.157.186 - - [15/Jul/2009:20:50:33 -0700] "GET /assets
/img/home/logo.png HTTP/1.1" 304 "-----
10.223.157.186 - - [15/Jul/2009:20:50:33 -0700] "GET /assets/img/dummy
/primary-news-2.jpg HTTP/1.1" 304 "-----
10.223.157.186 - - [15/Jul/2009:20:50:33 -0700] "GET /assets/img/dummy
/primary-news-1.jpg HTTP/1.1" 304 "-----
10.223.157.186 - - [15/Jul/2009:20:50:33 -0700] "GET /assets/img/home-media
block-placeholder.jpg HTTP/1.1" 304 "-----
```

Close

Activities Firefox Web Browser May 7 20:35

Hadoop Install x Data Science x (6) WhatsApp x How to proc... x YouTube x Problem load... x Browsing HDF5 x

localhost:9870/explorer.html#/output2000

Browse Directory

/output2000

Show 25 entries

Permission	Owner
-rw-r--r--	hadoop
-rw-r--r--	hadoop

Showing 1 to 2 of 2 entries

Hadoop, 2022.

File information - part-00000

Download Head the file (first 32K) Tail the file (last 32K)

Block information -- Block 0

Block ID: 1073741833
Block Pool ID: BP-1663392734-127.0.1.1-1651918144113
Generation Stamp: 1009
Size: 3838
Availability:
• rohit-VirtualBox

File contents

```
10.1.1.236 7
10.1.181.142 14
10.1.232.31 5
10.10.55.142 14
10.102.101.66 1
10.103.184.104 1
10.103.167.31 5
10.103.63.29 1
```

Close

10.94.190.42 1
10.95.136.211 4
10.95.232.88 1
10.98.156.141 1
10.99.228.224 1

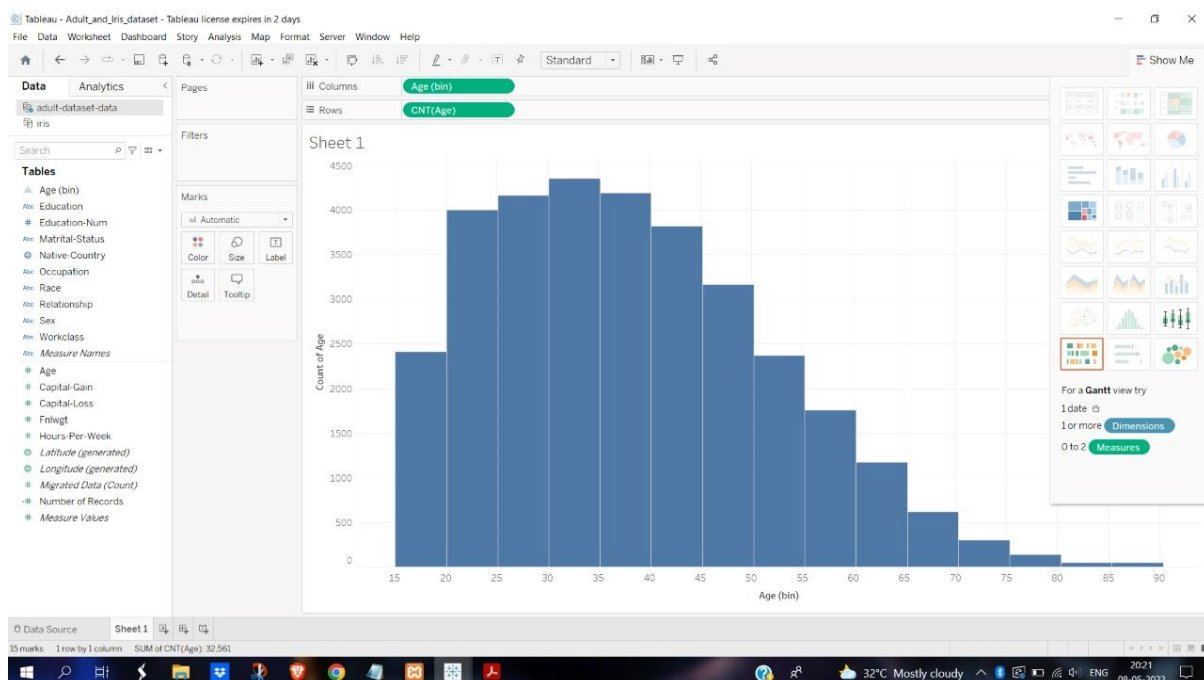
hadoop@rohit-VirtualBox:~/analyzeLogs\$

Group B

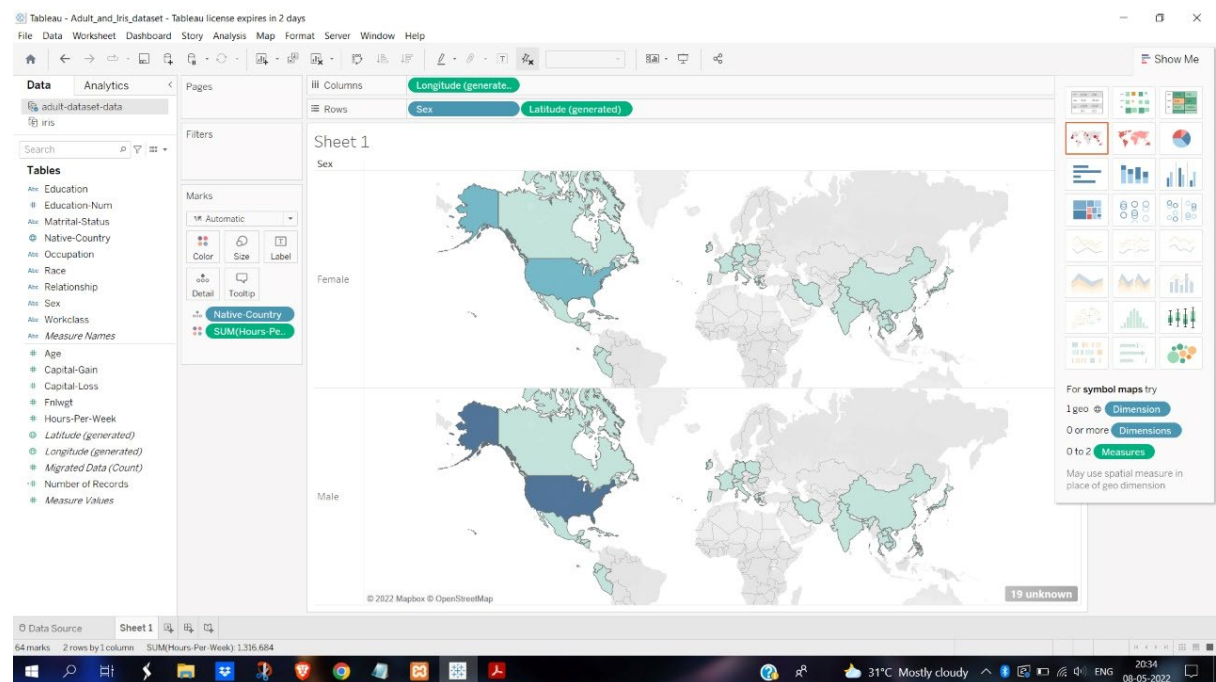
5. Perform the following data visualization operations using Tableau on Adult and Iris datasets.

- a. 1D (Linear) Data visualization
- b. 2D (Planar) Data Visualization
- c. 3D (Volumetric) Data Visualization
- d. Temporal Data Visualization
- e. Multidimensional Data Visualization
- f. Tree/ Hierarchical Data visualization
- g. Network Data visualization

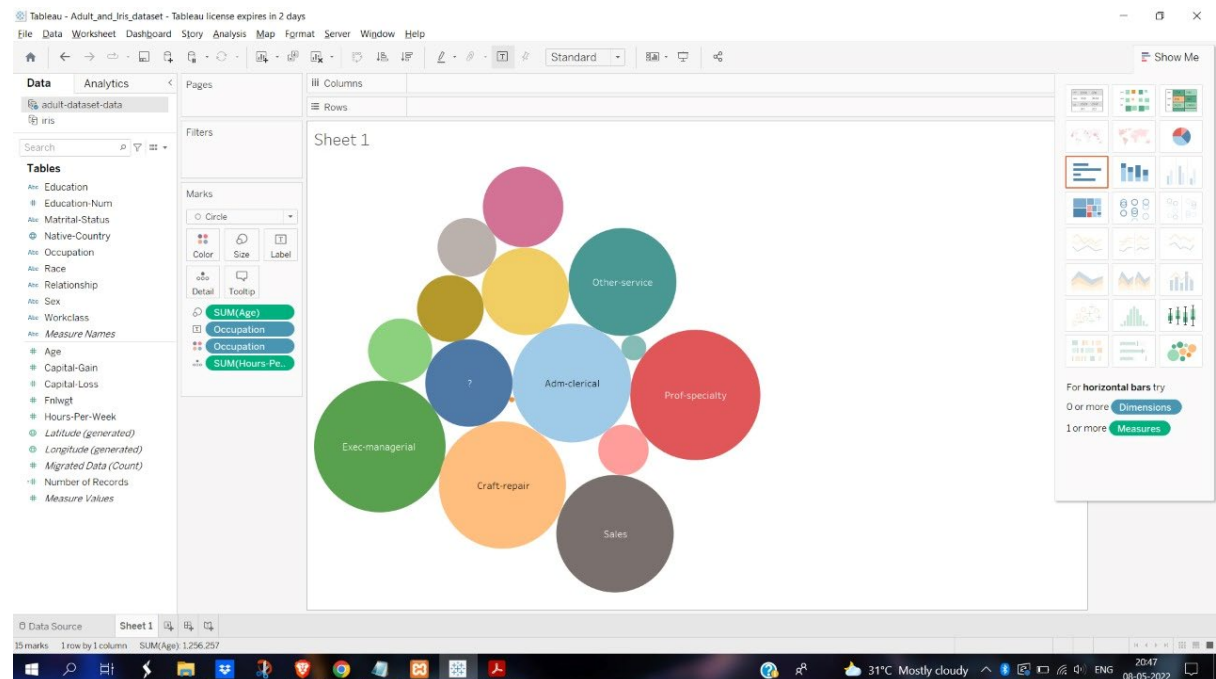
1. 1D (Linear) Data visualization of Adult Dataset



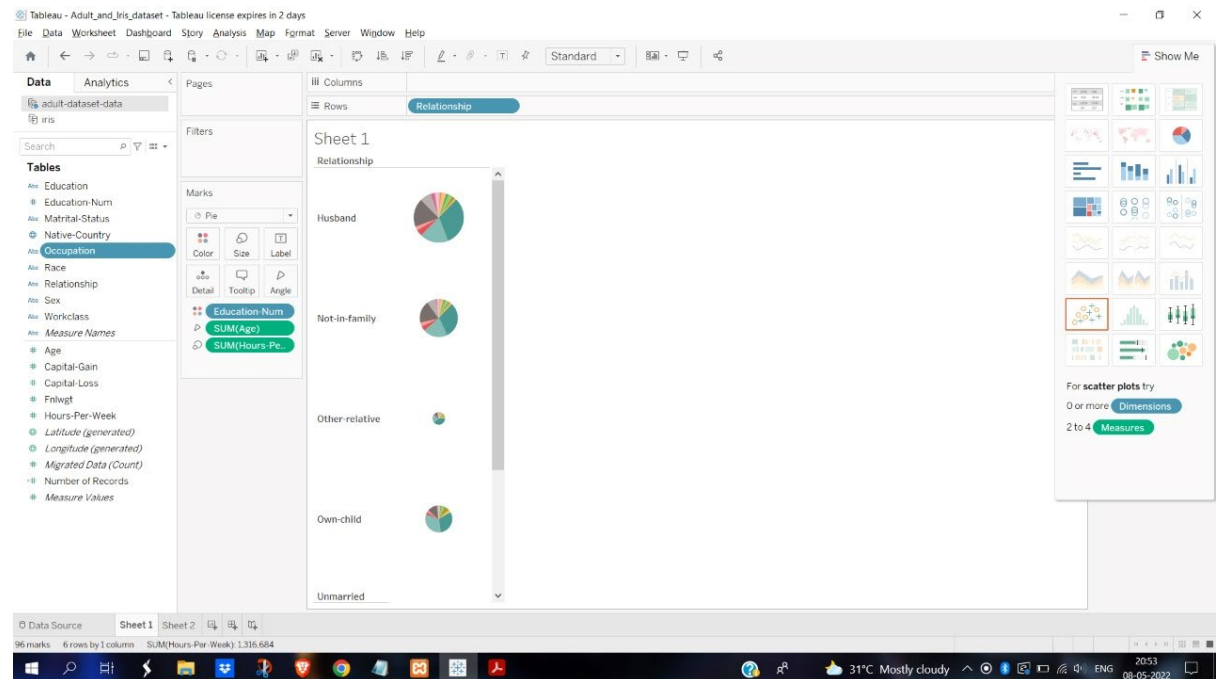
2. 2D (Planar) Data Visualization of Adult Dataset



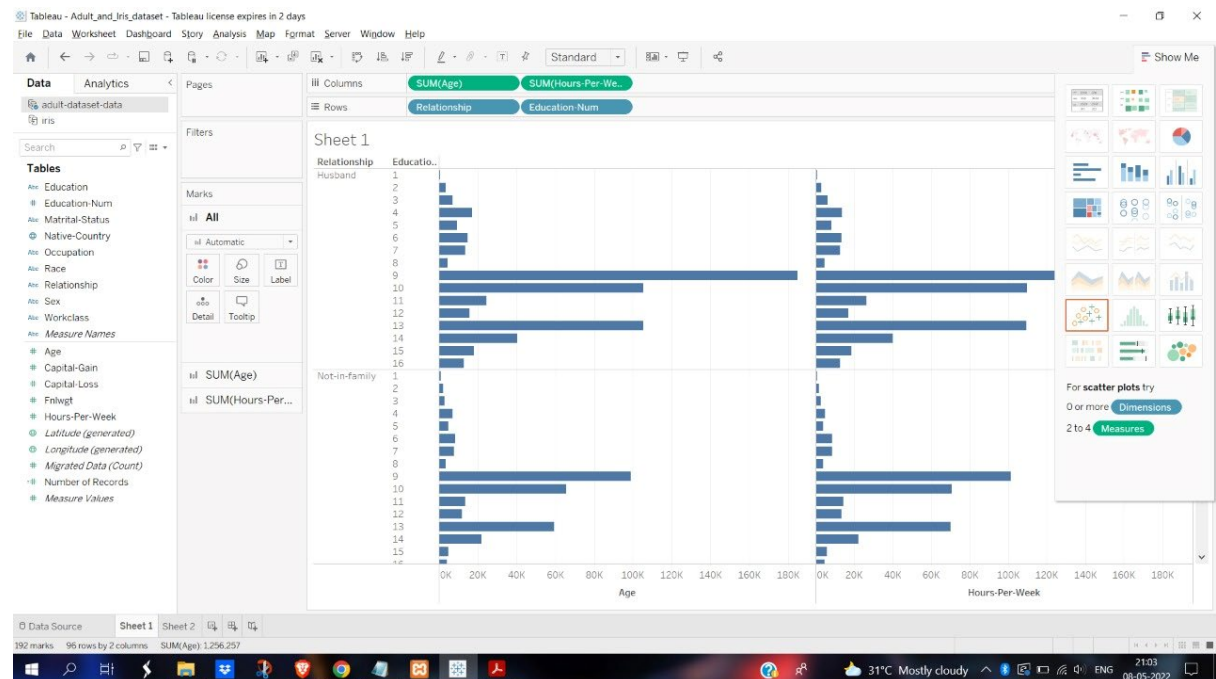
3. Temporal Data Visualization of Adult Dataset



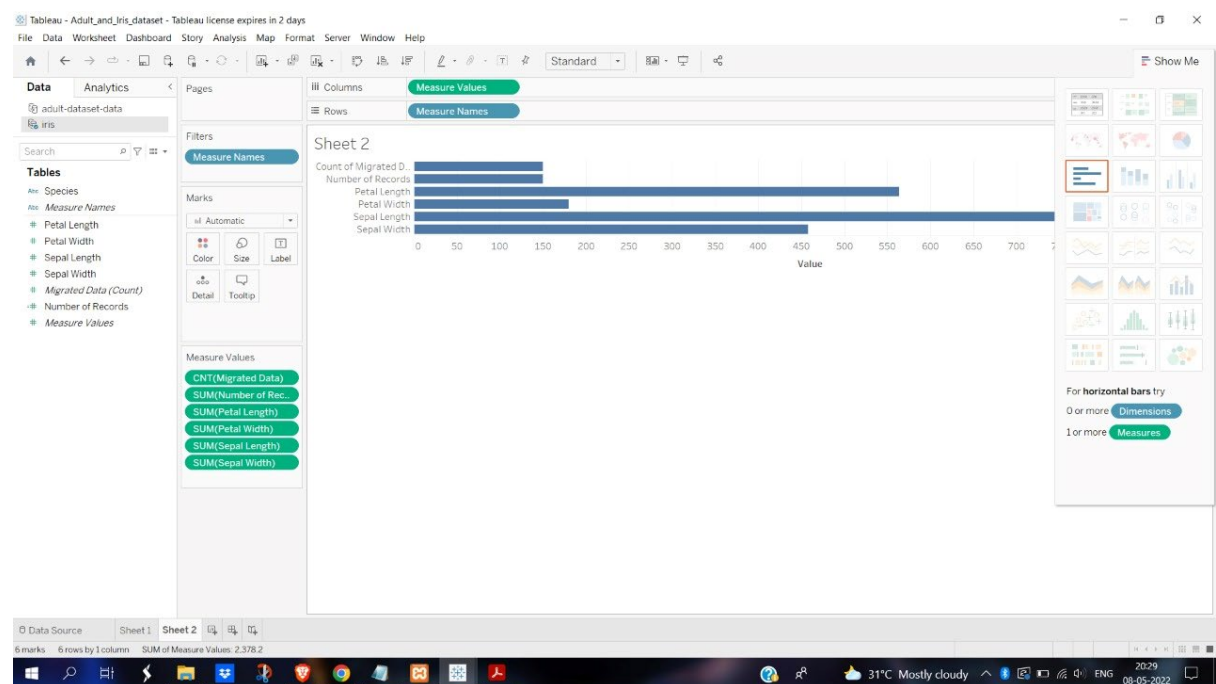
4. Multidimensional Data Visualization of Adult Dataset



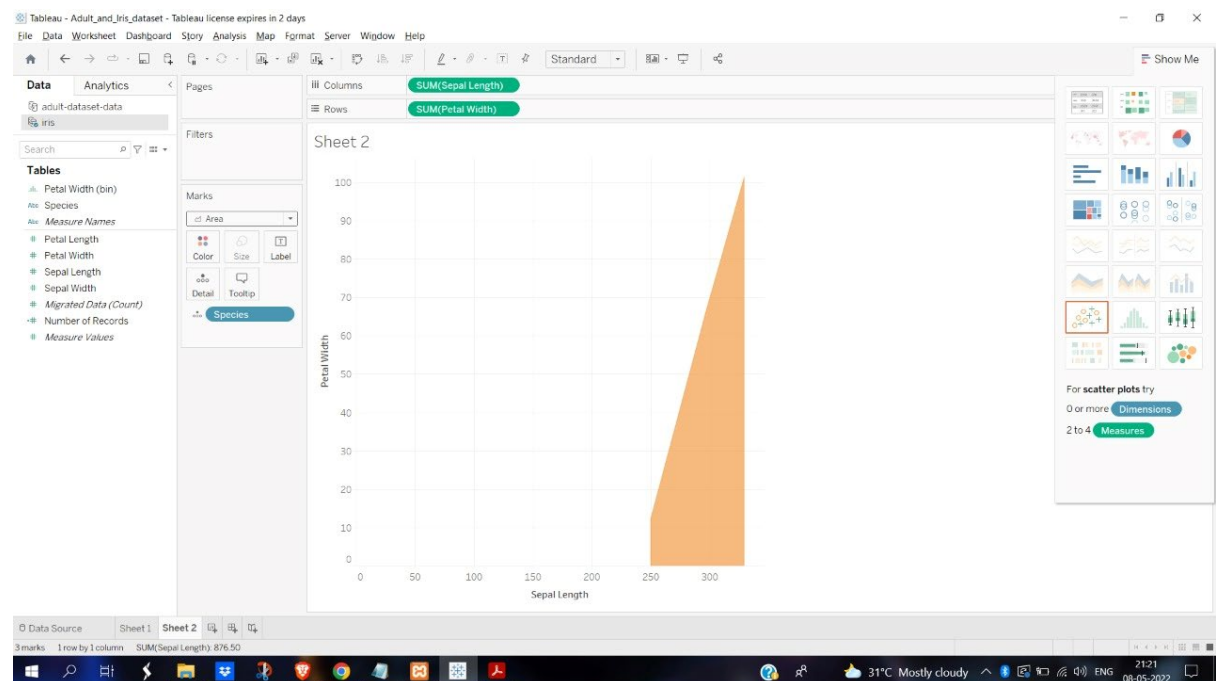
5. Tree/ Hierarchical Data visualization of Adult Dataset



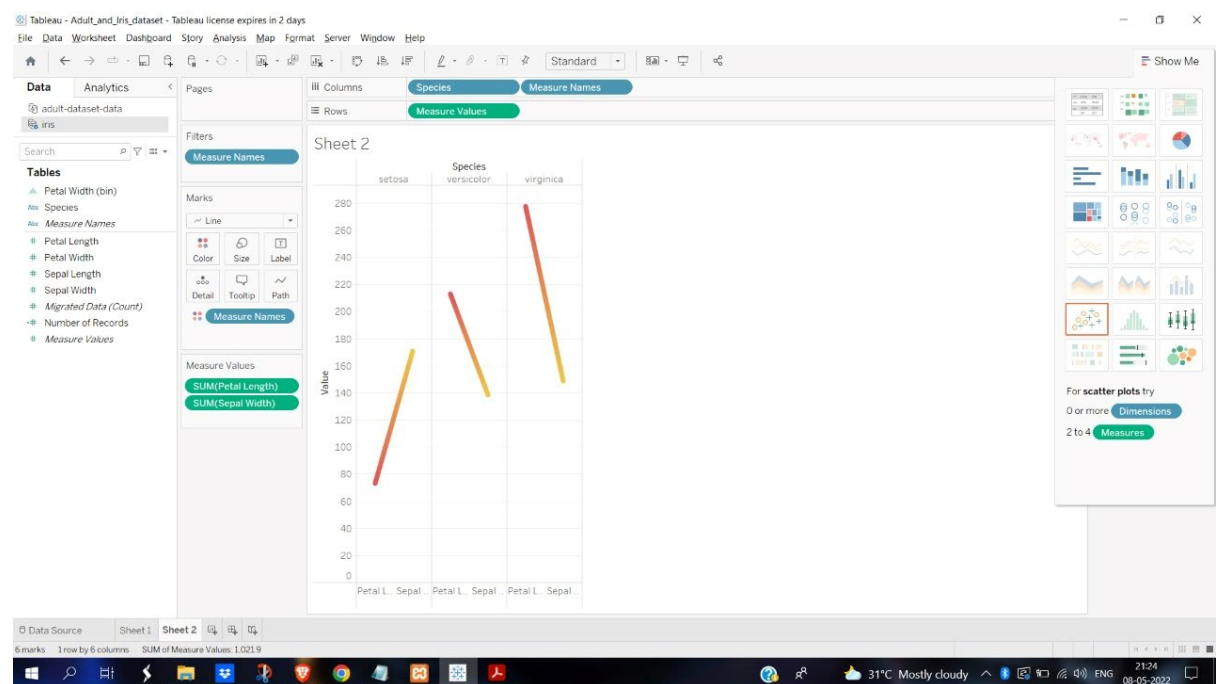
6. 1D (Linear) Data visualization of Iris Dataset



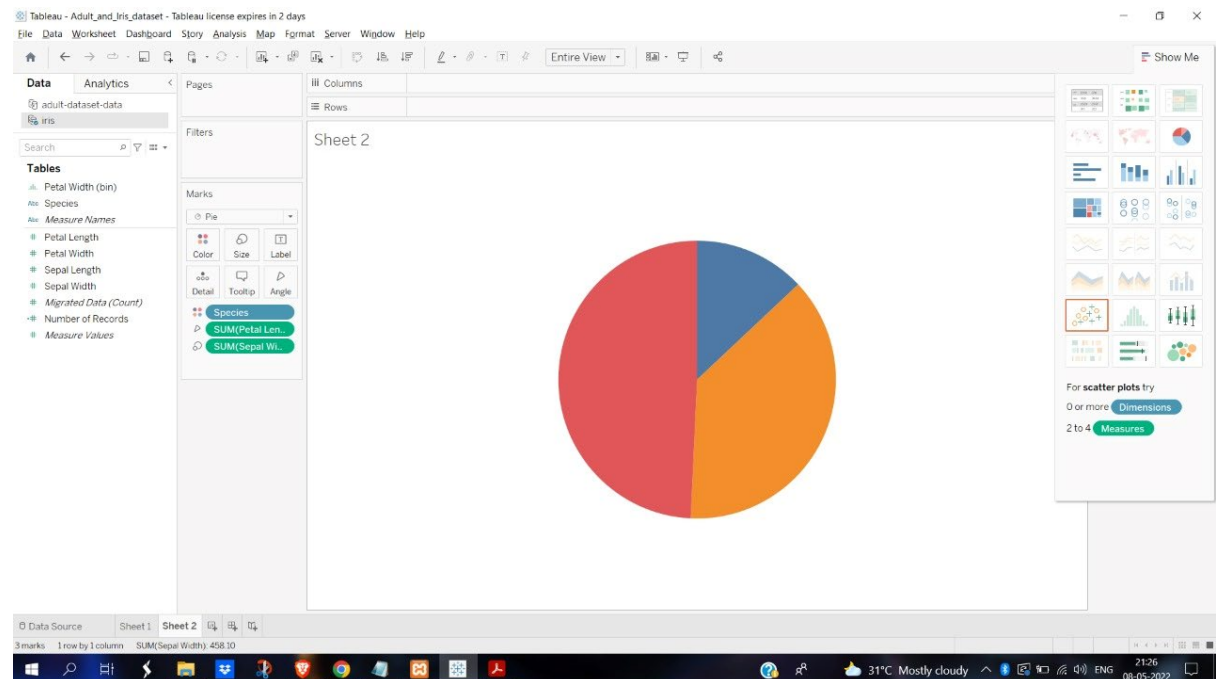
7. 2D (Planar) Data Visualization of Iris Dataset



8. Temporal Data Visualization of Iris Dataset



9. Multidimensional Data Visualization of Iris Dataset



10.Tree/ Hierarchical Data visualization of Adult Dataset

