

```
hduser@bmsce-Precision-T1700:~$ su hduser\  
> ^C  
hduser@bmsce-Precision-T1700:~$ ^C  
hduser@bmsce-Precision-T1700:~$ su  
hduserPassword:  
hduser@bmsce-Precision-T1700:~$ start-all.sh  
This script is Deprecated. Instead use start-dfs.sh and start-  
yarn.shStarting namenodes on [localhost]  
hduser@localhost's password:  
localhost: starting namenode, logging to /usr/local/hadoop/logs/hadoop-hduser-namenode-bmsce-  
Precision-T1700.out  
hduser@localhost's password:  
localhost: starting datanode, logging to /usr/local/hadoop/logs/hadoop-hduser-datanode-  
bmsce-Precision-T1700.out  
Starting secondary namenodes  
[0.0.0.0]hduser@0.0.0.0's password:  
0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop/logs/hadoop-  
hduser-secondarynamenode-bmsce-Precision-T1700.out  
starting yarn daemons  
starting resourcemanager, logging to /usr/local/hadoop/logs/yarn-hduser-resource manager-bmsce-  
Precision-T1700.out  
hduser@localhost's password:  
localhost: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-hduser-  
nodemanager-bmsce-Precision-T1700.out  
hduser@bmsce-Precision-T1700:~$  
jps7328 Jps  
6497 DataNode  
4372 org.eclipse.equinox.launcher_1.5.600.v20191014-2022.jar  
6325 NameNode  
7206 NodeManager  
6872 ResourceManager  
6713 SecondaryNameNode  
hduser@bmsce-Precision-T1700:~$ cat >  
sample.txthi im kusum  
i am learing  
hadoophadoop is  
awesome  
^C  
hduser@bmsce-Precision-T1700:~$ cat  
sample.txthi im kusum  
i am learing  
hadoophadoop is  
awesome  
hduser@bmsce-Precision-T1700:~$ hdfs dfs  
-ls /Found 18 items  
  
drwxr-xr-x          - supergroup         0   2022-06-06 12: /CSE  
x          hduser  
  
drwxr-xr-x          - supergroup         0   2022-06-06 12: /FFF  
x          hduser  
  
drwxr-xr-x          - supergroup         0   2022-06-06 12: /LLL  
x          hduser  
  
drwxr-xr-x          - supergroup         0   2022-06-20 12: /amit_bda  
x          hduser  
  
drwxr-xr-x          - supergroup         0   2022-06-03 14: /bharath  
x          hduser  
  
drwxr-xr-x          - supergroup         0   2022-06-03 14: /  
x          hduser                    43 bharath03  
5  
  
drwxr-xr-x          - supergroup         0   2022-05-31 10: /example  
x          hduser                    21  
  
drwxr-xr-x          - supergroup         0   2022-06-01 15: /  
x          hduser                    13 foldernew
```

drwxr-xr-x	- hduser	supergroup	0	2022-06-06	15:04	/hemang061
drwxr-xr-x	- hduser	supergroup	0	2022-06-03	12:27	/irfan
drwxr-xr-x	- hduser	supergroup	0	2022-06-01	15:09	/muskan
drwxr-xr-x	- hduser	supergroup	0	2022-06-06	15:04	/new_folder
drwxr-xr-x	- hduser	supergroup	0	2022-05-31	10:26	/one
drwxr-xr-x	- hduser	supergroup	0	2022-06-20	12:17	/output
drwxr-xr-x	- hduser	supergroup	0	2022-06-03	12:08	/saurab
drwxrwxr-x	- hduser	supergroup	0	2019-08-01	16:19	/tmp
drwxr-xr-x	- hduser	supergroup	0	2019-08-01	16:03	/user

```
drwxr-xr-x - hduser supergroup 0 2022-06-01 09:46 /
user1hduser@bmsce-Precision-T1700:~$ hdfs dfs -mkdir /input_kusum
hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /
Found 19 items
```

drwxr-xr-x	-	hduser	supergroup	0	2022-06-06	12:35	/CSE
drwxr-xr-x	-	hduser	supergroup	0	2022-06-06	12:23	/FFF
drwxr-xr-x	-	hduser	supergroup	0	2022-06-06	12:36	/LLL
drwxr-xr-x	-	hduser	supergroup	0	2022-06-20	12:06	/amit_bda
drwxr-xr-x	-	hduser	supergroup	0	2022-06-03	14:52	/bharath
drwxr-xr-x	-	hduser	supergroup	0	2022-06-03	14:43	/bharath035
drwxr-xr-x	-	hduser	supergroup	0	2022-05-31	10:21	/example
drwxr-xr-x	-	hduser	supergroup	0	2022-06-01	15:13	/foldernew
drwxr-xr-x	-	hduser	supergroup	0	2022-06-06	15:04	/hemang061
drwxr-xr-x	-	hduser	supergroup	0	2022-06-20	15:13	/input_kusum
drwxr-xr-x	-	hduser	supergroup	0	2022-06-03	12:27	/irfan
drwxr-xr-x	-	hduser	supergroup	0	2022-06-01	15:09	/muskan
drwxr-xr-x	-	hduser	supergroup	0	2022-06-06	15:04	/new_folder
drwxr-xr-x	-	hduser	supergroup	0	2022-05-31	10:26	/one
drwxr-xr-x	-	hduser	supergroup	0	2022-06-20	12:17	/output
drwxr-xr-x	-	hduser	supergroup	0	2022-06-03	12:08	/saurab
drwxrwxr-x	-	hduser	supergroup	0	2019-08-01	16:19	/tmp
drwxr-xr-x	-	hduser	supergroup	0	2019-08-01	16:03	/user
drwxr-xr-x	-	hduser	supergroup	0	2022-06-01	09:46	/user1

```
hduser@bmsce-Precision-T1700:~$ hdfs dfs -put /home/hduser/sample.txt /input_kusum
hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /input_kusum
Found 1 items
```

```
-rw-r--r-- 1 hduser supergroup 52 2022-06-20 15:15 /input_kusum/sample.txt
hduser@bmsce-Precision-T1700:~$ hadoop jar /home/hduser/kusum/WordCount.jar WCDriver
/input_kusum /input_kusum/output_kusum
22/06/20 15:16:44 INFO Configuration.deprecation: session.id is deprecated. Instead,
usedfs.metrics.session-id
22/06/20 15:16:44 INFO jvm.JvmMetrics: Initializing JVM Metrics with
processName=JobTracker, sessionId=
22/06/20 15:16:44 INFO jvm.JvmMetrics: Cannot initialize JVM Metrics
withprocessName=JobTracker, sessionId= - already initiali
```

```

22/06/20 15:16:44 INFO mapred.MapTask: Map output collector class
=org.apache.hadoop.mapred.MapTask$MapOutputBuffer
22/06/20 15:16:44 INFO mapred.LocalJobRunner:
22/06/20 15:16:44 INFO mapred.MapTask: Starting flush of map
output22/06/20 15:16:44 INFO mapred.MapTask: Spilling map output
22/06/20 15:16:44 INFO mapred.MapTask: bufstart = 0; bufend = 92; bufvoid =
10485760022/06/20 15:16:44 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend
= 26214360(104857440); length = 37/6553600
22/06/20 15:16:44 INFO mapred.MapTask: Finished spill 0
22/06/20 15:16:44 INFO mapred.Task: Task:attempt_local230197290_0001_m_000000_0 is done. And
isin the process of committing
22/06/20 15:16:44 INFO mapred.LocalJobRunner:
hdfs://localhost:54310/input_kusum/sample.txt:0+52
22/06/20 15:16:44 INFO mapred.Task: Task 'attempt_local230197290_0001_m_000000_0'
done.22/06/20 15:16:44 INFO mapred.LocalJobRunner: Finishing task:
attempt_local230197290_0001_m_000000_0
22/06/20 15:16:44 INFO mapred.LocalJobRunner: map task executor
complete.22/06/20 15:16:44 INFO mapred.LocalJobRunner: Waiting for reduce
tasks22/06/20 15:16:44 INFO mapred.LocalJobRunner: Starting task:
attempt_local230197290_0001_r_000000_0
22/06/20 15:16:44 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]
22/06/20 15:16:44 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin:
org.apache.hadoop.mapreduce.task.reduce.Shuffle@3a86821c
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: MergerManager:
memoryLimit=334338464,maxSingleShuffleLimit=83584616, mergeThreshold=220663392,
ioSortFactor=10, memToMemMergeOutputsThreshold=10
22/06/20 15:16:44 INFO reduce.EventFetcher: attempt_local230197290_0001_r_000000_0
Threadstarted: EventFetcher for fetching Map Completion Events
22/06/20 15:16:44 INFO reduce.LocalFetcher: localfetcher#1 about to shuffle output of
mapattempt_local230197290_0001_m_000000_0 decomp: 114 len: 118 to MEMORY
22/06/20 15:16:44 INFO reduce.InMemoryMapOutput: Read 114 bytes from map-output
forattempt_local230197290_0001_m_000000_0
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size:
114,inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory ->114
22/06/20 15:16:44 INFO reduce.EventFetcher: EventFetcher is interrupted..
Returning22/06/20 15:16:44 INFO mapred.LocalJobRunner: 1 / 1 copied.
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: finalMerge called with 1 in-memory map-
outputsand 0 on-disk map-outputs
22/06/20 15:16:44 INFO mapred.Merger: Merging 1 sorted segments
22/06/20 15:16:44 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left
oftotal size: 109 bytes
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: Merged 1 segments, 114 bytes to disk to
satisfyreduce memory limit
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: Merging 1 files, 118 bytes from disk
22/06/20 15:16:44 INFO reduce.MergeManagerImpl: Merging 0 segments, 0 bytes from memory
intoreduce
22/06/20 15:16:44 INFO mapred.Merger: Merging 1 sorted segments
22/06/20 15:16:44 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left
oftotal size: 109 bytes
22/06/20 15:16:44 INFO mapred.LocalJobRunner: 1 / 1 copied.
22/06/20 15:16:44 INFO mapred.Task: Task:attempt_local230197290_0001_r_000000_0 is done. And
isin the process of committing
22/06/20 15:16:44 INFO mapred.LocalJobRunner: 1 / 1 copied.
22/06/20 15:16:44 INFO mapred.Task: Task attempt_local230197290_0001_r_000000_0 is allowed
tocommit now
22/06/20 15:16:44 INFO output.FileOutputCommitter: Saved output of task
'attempt_local230197290_0001_r_000000_0' to hdfs://localhost:54310/input_kusum/output_kusum/
temporary/0/task_local230197290_0001_r_000000
22/06/20 15:16:44 INFO mapred.LocalJobRunner: reduce > reduce

```

```

22/06/20 15:16:44 INFO mapred.Task: Task 'attempt_local230197290_0001_r_000000_0'
done. 22/06/20 15:16:44 INFO mapred.LocalJobRunner: Finishing task:
attempt_local230197290_0001_r_000000_0
22/06/20 15:16:44 INFO mapred.LocalJobRunner: reduce task executor complete.
22/06/20 15:16:45 INFO mapreduce.Job: Job job_local230197290_0001 running in uber mode :
false22/06/20 15:16:45 INFO mapreduce.Job: map 100% reduce 100%
22/06/20 15:16:45 INFO mapreduce.Job: Job job_local230197290_0001 completed
successfully22/06/20 15:16:45 INFO mapreduce.Job: Counters: 38

```

File System Counters

```

FILE: Number of bytes read=8462
FILE: Number of bytes
written=507630FILE: Number of read
operations=0
FILE: Number of large read
operations=0FILE: Number of write
operations=0 HDFS: Number of bytes
read=104
HDFS: Number of bytes written=63
HDFS: Number of read operations=15
HDFS: Number of large read
operations=0HDFS: Number of write
operations=4

```

Map-Reduce Framework

```

Map input records=3
Map output
records=10Map output
bytes=92
Map output materialized
bytes=118Input split bytes=99
Combine input records=0
Combine output
records=0Reduce input
groups=9 Reduce shuffle
bytes=118Reduce input
records=10 Reduce output
records=9 Spilled
Records=20 Shuffled Maps
=1
Failed Shuffles=0
Merged Map outputs=1
GC time elapsed
(ms)=1CPU time spent
(ms)=0
Physical memory (bytes)
snapshot=0Virtual memory (bytes)
snapshot=0
Total committed heap usage
(bytes)=471859200Shuffle Errors
BAD_ID=0
CONNECTION=0
IO_ERROR=0
WRONG_LENGTH=
OWRONG_MAP=0
WRONG_REDUCE=0

```

File Input Format

```

CountersBytes
Read=52

```

File Output Format

```

CountersBytes
Written=63

```

0

```

hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /input_kusum

```

Found 2 items

```

drwxr-xr-x - hduser supergroup 0 2022-06-20 15:16 /input_kusum/output_kusum
-rw-r--r-- 1 hduser supergroup 52 2022-06-20 15:15 /input_kusum/sample.txt

```

```

hduser@bmsce-Precision-T1700:~$ hdfs dfs -ls /input_kusum/output_kusum

```

Found 2 items

```

-rw-r--r-- 1 hduser supergroup 0 2022-06-20 15:16
/input_kusum/output_kusum/_SUCCESS

```

```
-rw-r--r--    1 hduser supergroup          63 2022-06-20 15:16

```