docker run -it --name hadoop-cluster -p 9870:9870 -p 8088:8088 -p 50070:50070 bde2020/hadoop -namenode:latest /bin/bash

```
-v, --version          Print version information and quit

Run 'docker COMMAND --help' for more information on a command.

For more help on how to use Docker, head to https://docs.docker.com/go/guides/

C:\Users\user>docker images
REPOSITORY                TAG       IMAGE ID       CREATED         SIZE
thisfristone              latest    de0fd248b0fe   2 weeks ago     226MB
jenkins/jenkins           latest    6e28580fa377   3 weeks ago     788MB
ubuntu                    latest    99c35190e22d   5 weeks ago     117MB
nginx                     latest    28402db69fec   6 weeks ago     279MB
docker/welcome-to-docker  latest    eedaff45e3c7   12 months ago   29.5MB
hello-world               latest    d211f485f2dd   18 months ago   24.4kB
bde2020/hadoop-namenode   latest    fdf741108051   4 years ago     2.05GB

C:\Users\user>docker run -it --name hadoop-cluster -p 9870:9870 -p 8088:8088 -p 50070:50070 bde2020/hadoop-namenode:latest /bin/bash
Configuring core
 - Setting fs.defaultFS=hdfs://9f3066d6281e:8020
Configuring hdfs
 - Setting dfs.namenode.name.dir=file:///hadoop/dfs/name
Configuring yarn
Configuring httpfs
Configuring kms
Configuring mapred
Configuring for multihomed network
root@9f3066d6281e:/#
```

start the Hadoop services

hdfs namenode –format

```
2024-11-18 08:09:58,945 INFO namenode.FSDirectory: ACLs enabled? false
2024-11-18 08:09:58,945 INFO namenode.FSDirectory: POSIX ACL inheritance enabled? true
2024-11-18 08:09:58,945 INFO namenode.FSDirectory: XAttrs enabled? true
2024-11-18 08:09:58,945 INFO namenode.NameNode: Caching file names occurring more than 10 times
2024-11-18 08:09:58,950 INFO snapshot.SnapshotManager: Loaded config captureOpenFiles: false, skipCaptureAccessTimeOnlyChange: false, s
napshotDiffAllowSnapRootDescendant: true, maxSnapshotLimit: 65536
2024-11-18 08:09:58,952 INFO snapshot.SnapshotManager: SkipList is disabled
2024-11-18 08:09:58,956 INFO util.GSet: Computing capacity for map cachedBlocks
2024-11-18 08:09:58,956 INFO util.GSet: VM type       = 64-bit
2024-11-18 08:09:58,956 INFO util.GSet: 0.25% max memory 2.6 GB = 6.6 MB
2024-11-18 08:09:58,956 INFO util.GSet: capacity      = 2^20 = 1048576 entries
2024-11-18 08:09:58,963 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.window.num.buckets = 10
2024-11-18 08:09:58,963 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.num.users = 10
2024-11-18 08:09:58,963 INFO metrics.TopMetrics: NNTop conf: dfs.namenode.top.windows.minutes = 1,5,25
2024-11-18 08:09:58,967 INFO namenode.FSNamesystem: Retry cache on namenode is enabled
2024-11-18 08:09:58,967 INFO namenode.FSNamesystem: Retry cache will use 0.03 of total heap and retry cache entry expiry time is 600000
 millis
2024-11-18 08:09:58,970 INFO util.GSet: Computing capacity for map NameNodeRetryCache
2024-11-18 08:09:58,970 INFO util.GSet: VM type       = 64-bit
2024-11-18 08:09:58,970 INFO util.GSet: 0.029999999329447746% max memory 2.6 GB = 811.0 KB
2024-11-18 08:09:58,970 INFO util.GSet: capacity      = 2^17 = 131072 entries
2024-11-18 08:09:58,997 INFO namenode.FSImage: Allocated new BlockPoolId: BP-712404385-172.17.0.2-1731917398991
2024-11-18 08:09:59,012 INFO common.Storage: Storage directory /hadoop/dfs/name has been successfully formatted.
2024-11-18 08:09:59,039 INFO namenode.FSImageFormatProtobuf: Saving image file /hadoop/dfs/name/current/fsimage.ckpt_000000000000000000
0 using no compression
2024-11-18 08:09:59,136 INFO namenode.FSImageFormatProtobuf: Image file /hadoop/dfs/name/current/fsimage.ckpt_0000000000000000000 of si
ze 399 bytes saved in 0 seconds .
2024-11-18 08:09:59,145 INFO namenode.NNStorageRetentionManager: Going to retain 1 images with txid >= 0
2024-11-18 08:09:59,151 INFO namenode.FSImage: FSImageSaver clean checkpoint: txid=0 when meet shutdown.
2024-11-18 08:09:59,151 INFO namenode.NameNode: SHUTDOWN_MSG:
/************************************************************
SHUTDOWN_MSG: Shutting down NameNode at 9f3066d6281e/172.17.0.2
************************************************************/
root@9f3066d6281e:/#
```

hdfs namenode &

```
Command Prompt - docker run -it --name hadoop-cluster -p 9870:9870 -p 8088:8088 -p 50070:50070 bde2020/hadoop-namenode:latest /bin/bash
2024-11-18 08:10:23,806 INFO namenode.FSImage: Loaded image for txid 0 from /hadoop/dfs/name/current/fsimage_0000000000000000000
2024-11-18 08:10:23,809 INFO namenode.FSNamesystem: Need to save fs image? false (staleImage=false, haEnabled=false, isRollingUpgrade=f
alse)
2024-11-18 08:10:23,810 INFO namenode.FSEditLog: Starting log segment at 1
2024-11-18 08:10:23,899 INFO namenode.NameCache: initialized with 0 entries 0 lookups
2024-11-18 08:10:23,899 INFO namenode.FSNamesystem: Finished loading FSImage in 293 msecs
2024-11-18 08:10:24,108 INFO namenode.NameNode: RPC server is binding to 0.0.0.0:8020
2024-11-18 08:10:24,131 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 1000
, scheduler: class org.apache.hadoop.ipc.DefaultRpcScheduler, ipcBackoff: false.
2024-11-18 08:10:24,139 INFO ipc.Server: Starting Socket Reader #1 for port 8020
2024-11-18 08:10:24,272 INFO namenode.FSNamesystem: Registered FSNamesystemState, ReplicatedBlocksState and ECBlockGroupsState MBeans.
2024-11-18 08:10:24,279 INFO namenode.LeaseManager: Number of blocks under construction: 0
2024-11-18 08:10:24,286 INFO blockmanagement.BlockManager: initializing replication queues
2024-11-18 08:10:24,286 INFO hdfs.StateChange: STATE* Leaving safe mode after 0 secs
2024-11-18 08:10:24,287 INFO hdfs.StateChange: STATE* Network topology has 0 racks and 0 datanodes
2024-11-18 08:10:24,287 INFO hdfs.StateChange: STATE* UnderReplicatedBlocks has 0 blocks
2024-11-18 08:10:24,297 INFO blockmanagement.BlockManager: Total number of blocks            = 0
2024-11-18 08:10:24,297 INFO blockmanagement.BlockManager: Number of invalid blocks          = 0
2024-11-18 08:10:24,297 INFO blockmanagement.BlockManager: Number of under-replicated blocks = 0
2024-11-18 08:10:24,297 INFO blockmanagement.BlockManager: Number of  over-replicated blocks = 0
2024-11-18 08:10:24,298 INFO blockmanagement.BlockManager: Number of blocks being written    = 0
2024-11-18 08:10:24,298 INFO hdfs.StateChange: STATE* Replication Queue initialization scan for invalid, over- and under-replicated blo
cks completed in 12 msec
2024-11-18 08:10:24,309 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:10:24,310 INFO ipc.Server: IPC Server listener on 8020: starting
2024-11-18 08:10:24,313 INFO namenode.NameNode: NameNode RPC up at: 9f3066d6281e/172.17.0.2:8020
2024-11-18 08:10:24,316 INFO namenode.FSNamesystem: Starting services required for active state
2024-11-18 08:10:24,316 INFO namenode.FSDirectory: Initializing quota with 4 thread(s)
2024-11-18 08:10:24,322 INFO namenode.FSDirectory: Quota initialization completed in 6 milliseconds
name space=1
storage space=0
storage types=RAM_DISK=0, SSD=0, DISK=0, ARCHIVE=0, PROVIDED=0
2024-11-18 08:10:24,327 INFO blockmanagement.CacheReplicationMonitor: Starting CacheReplicationMonitor with interval 30000 milliseconds
```

hdfs datanode &


```
Command Prompt - docker run -it --name hadoop-cluster -p 9870:9870 -p 8088:8088 -p 50070:50070 bde2020/hadoop-namenode:latest /bin/bash
8991: 4ms
2024-11-18 08:11:03,413 INFO datanode.VolumeScanner: Now scanning bpid BP-712404385-172.17.0.2-1731917398991 on volume /tmp/hadoop-root
/dfs/data
2024-11-18 08:11:03,415 INFO datanode.VolumeScanner: VolumeScanner(/tmp/hadoop-root/dfs/data, DS-ee42f06c-4fc3-4af1-99e8-617e2e720e9b):
 finished scanning block pool BP-712404385-172.17.0.2-1731917398991
2024-11-18 08:11:03,428 INFO datanode.VolumeScanner: VolumeScanner(/tmp/hadoop-root/dfs/data, DS-ee42f06c-4fc3-4af1-99e8-617e2e720e9b):
 no suitable block pools found to scan.  Waiting 1814399985 ms.
2024-11-18 08:11:03,431 INFO datanode.DirectoryScanner: Periodic Directory Tree Verification scan starting at 11/18/24 12:34 PM with in
terval of 21600000ms
2024-11-18 08:11:03,437 INFO datanode.DataNode: Block pool BP-712404385-172.17.0.2-1731917398991 (Datanode Uuid b5818208-c523-4fd6-9bd7
-83b6c8a4c1bb) service to 9f3066d6281e/172.17.0.2:8020 beginning handshake with NN
2024-11-18 08:11:03,468 INFO hdfs.StateChange: BLOCK* registerDatanode: from DatanodeRegistration(172.17.0.2:9866, datanodeUuid=b581820
8-c523-4fd6-9bd7-83b6c8a4c1bb, infoPort=9864, infoSecurePort=0, ipcPort=9867, storageInfo=lv=-57;cid=CID-f5cf278d-c772-49af-bca9-a1cddb
6d301d;nsid=1474860137;c=1731917398991) storage b5818208-c523-4fd6-9bd7-83b6c8a4c1bb
2024-11-18 08:11:03,470 INFO net.NetworkTopology: Adding a new node: /default-rack/172.17.0.2:9866
2024-11-18 08:11:03,470 INFO blockmanagement.BlockReportLeaseManager: Registered DN b5818208-c523-4fd6-9bd7-83b6c8a4c1bb (172.17.0.2:98
66).
2024-11-18 08:11:03,481 INFO datanode.DataNode: Block pool Block pool BP-712404385-172.17.0.2-1731917398991 (Datanode Uuid b5818208-c52
3-4fd6-9bd7-83b6c8a4c1bb) service to 9f3066d6281e/172.17.0.2:8020 successfully registered with NN
2024-11-18 08:11:03,481 INFO datanode.DataNode: For namenode 9f3066d6281e/172.17.0.2:8020 using BLOCKREPORT_INTERVAL of 21600000msec CA
CHEREPORT_INTERVAL of 10000msec Initial delay: 0msec; heartBeatInterval=3000
2024-11-18 08:11:03,532 INFO blockmanagement.DatanodeDescriptor: Adding new storage ID DS-ee42f06c-4fc3-4af1-99e8-617e2e720e9b for DN 1
72.17.0.2:9866
2024-11-18 08:11:03,562 INFO BlockStateChange: BLOCK* processReport 0xfea286c194c9c2e0: Processing first storage report for DS-ee42f06c
-4fc3-4af1-99e8-617e2e720e9b from datanode b5818208-c523-4fd6-9bd7-83b6c8a4c1bb
2024-11-18 08:11:03,564 INFO BlockStateChange: BLOCK* processReport 0xfea286c194c9c2e0: from storage DS-ee42f06c-4fc3-4af1-99e8-617e2e7
20e9b node DatanodeRegistration(172.17.0.2:9866, datanodeUuid=b5818208-c523-4fd6-9bd7-83b6c8a4c1bb, infoPort=9864, infoSecurePort=0, ip
cPort=9867, storageInfo=lv=-57;cid=CID-f5cf278d-c772-49af-bca9-a1cddb6d301d;nsid=1474860137;c=1731917398991), blocks: 0, hasStaleStorag
e: false, processing time: 2 msecs, invalidatedBlocks: 0
2024-11-18 08:11:03,590 INFO datanode.DataNode: Successfully sent block report 0xfea286c194c9c2e0,  containing 1 storage report(s), of
which we sent 1. The reports had 0 total blocks and used 1 RPC(s). This took 2 msec to generate and 40 msecs for RPC and NN processing.
 Got back one command: FinalizeCommand/5.
2024-11-18 08:11:03,590 INFO datanode.DataNode: Got finalize command for block pool BP-712404385-172.17.0.2-1731917398991
```

start-all.sh

```
2024-11-18 08:12:21,498 INFO ipc.Server: Starting Socket Reader #1 for port 8031
2024-11-18 08:12:21,500 INFO pb.RpcServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.server.api.ResourceTrackerPB to the serv
er
2024-11-18 08:12:21,500 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,500 INFO ipc.Server: IPC Server listener on 8031: starting
2024-11-18 08:12:21,529 INFO util.JvmPauseMonitor: Starting JVM pause monitor
2024-11-18 08:12:21,540 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 5000
, scheduler: class org.apache.hadoop.ipc.DefaultRpcScheduler, ipcBackoff: false.
2024-11-18 08:12:21,545 INFO ipc.Server: Starting Socket Reader #1 for port 8030
2024-11-18 08:12:21,550 INFO pb.RpcServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.api.ApplicationMasterProtocolPB to the s
erver
2024-11-18 08:12:21,551 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,551 INFO ipc.Server: IPC Server listener on 8030: starting
2024-11-18 08:12:21,635 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 5000
, scheduler: class org.apache.hadoop.ipc.DefaultRpcScheduler, ipcBackoff: false.
2024-11-18 08:12:21,637 INFO ipc.Server: Starting Socket Reader #1 for port 8032
2024-11-18 08:12:21,641 INFO pb.RpcServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.api.ApplicationClientProtocolPB to the s
erver
2024-11-18 08:12:21,642 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,643 INFO ipc.Server: IPC Server listener on 8032: starting
2024-11-18 08:12:21,659 INFO resourcemanager.ResourceManager: Transitioned to active state
2024-11-18 08:12:31,100 INFO resourcemanager.ResourceTrackerService: NodeManager from node 9f3066d6281e(cmPort: 37635 httpPort: 8042) r
egistered with capability: <memory:8192, vCores:8>, assigned nodeId 9f3066d6281e:37635
2024-11-18 08:12:31,120 INFO rmnode.RMNodeImpl: 9f3066d6281e:37635 Node Transitioned from NEW to RUNNING
2024-11-18 08:12:31,174 INFO security.NMContainerTokenSecretManager: Rolling master-key for container-tokens, got key with id 196283972
4
2024-11-18 08:12:31,179 INFO security.NMTokenSecretManagerInNM: Rolling master-key for container-tokens, got key with id 1378724301
2024-11-18 08:12:31,183 INFO nodemanager.NodeStatusUpdaterImpl: Registered with ResourceManager as 9f3066d6281e:37635 with total resour
ce of <memory:8192, vCores:8>
2024-11-18 08:12:31,220 INFO capacity.CapacityScheduler: Added node 9f3066d6281e:37635 clusterResource: <memory:8192, vCores:8>

root@9f3066d6281e:/# start-all.sh
bash: start-all.sh: command not found
root@9f3066d6281e:/#
```

hdfs dfs -mkdir -p /user/hadoop/input


```
2024-11-18 08:12:21,500 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,500 INFO ipc.Server: IPC Server listener on 8031: starting
2024-11-18 08:12:21,529 INFO util.JvmPauseMonitor: Starting JVM pause monitor
2024-11-18 08:12:21,540 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 5000
, scheduler: class org.apache.hadoop.ipc.DefaultRpcScheduler, ipcBackoff: false.
2024-11-18 08:12:21,545 INFO ipc.Server: Starting Socket Reader #1 for port 8030
2024-11-18 08:12:21,550 INFO pb.RpcServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.api.ApplicationMasterProtocolPB to the s
erver
2024-11-18 08:12:21,551 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,551 INFO ipc.Server: IPC Server listener on 8030: starting
2024-11-18 08:12:21,635 INFO ipc.CallQueueManager: Using callQueue: class java.util.concurrent.LinkedBlockingQueue, queueCapacity: 5000
, scheduler: class org.apache.hadoop.ipc.DefaultRpcScheduler, ipcBackoff: false.
2024-11-18 08:12:21,637 INFO ipc.Server: Starting Socket Reader #1 for port 8032
2024-11-18 08:12:21,641 INFO pb.RpcServerFactoryPBImpl: Adding protocol org.apache.hadoop.yarn.api.ApplicationClientProtocolPB to the s
erver
2024-11-18 08:12:21,642 INFO ipc.Server: IPC Server Responder: starting
2024-11-18 08:12:21,643 INFO ipc.Server: IPC Server listener on 8032: starting
2024-11-18 08:12:21,659 INFO resourcemanager.ResourceManager: Transitioned to active state
2024-11-18 08:12:31,100 INFO resourcemanager.ResourceTrackerService: NodeManager from node 9f3066d6281e(cmPort: 37635 httpPort: 8042) r
egistered with capability: <memory:8192, vCores:8>, assigned nodeId 9f3066d6281e:37635
2024-11-18 08:12:31,120 INFO rmnode.RMNodeImpl: 9f3066d6281e:37635 Node Transitioned from NEW to RUNNING
2024-11-18 08:12:31,174 INFO security.NMContainerTokenSecretManager: Rolling master-key for container-tokens, got key with id 196283972
4
2024-11-18 08:12:31,179 INFO security.NMTokenSecretManagerInNM: Rolling master-key for container-tokens, got key with id 1378724301
2024-11-18 08:12:31,183 INFO nodemanager.NodeStatusUpdaterImpl: Registered with ResourceManager as 9f3066d6281e:37635 with total resour
ce of <memory:8192, vCores:8>
2024-11-18 08:12:31,220 INFO capacity.CapacityScheduler: Added node 9f3066d6281e:37635 clusterResource: <memory:8192, vCores:8>

root@9f3066d6281e:/# start-all.sh
bash: start-all.sh: command not found
root@9f3066d6281e:/# hdfs dfs -mkdir -p /user/hadoop/input
2024-11-18 08:13:17,624 INFO namenode.FSEditLog: Number of transactions: 4 Total time for transactions(ms): 11 Number of transactions b
atched in Syncs: 0 Number of syncs: 2 SyncTimes(ms): 10
root@9f3066d6281e:/#
```

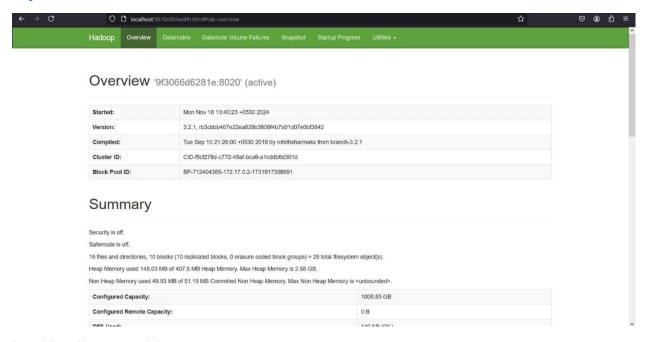hdfs dfs -put $HADOOP_HOME/etc/hadoop/*.xml /user/hadoop/input

```
991:blk_1073741831_1007, duration(ns): 4714042
2024-11-18 08:13:47,119 INFO datanode.DataNode: PacketResponder: BP-712404385-172.17.0.2-1731917398991:blk_1073741831_1007, type=LAST_I
N_PIPELINE terminating
2024-11-18 08:13:47,122 INFO namenode.FSNamesystem: BLOCK* blk_1073741831_1007 is COMMITTED but not COMPLETE(numNodes= 0 <  minimum = 1
) in file /user/hadoop/input/kms-site.xml._COPYING_
2024-11-18 08:13:47,528 INFO hdfs.StateChange: DIR* completeFile: /user/hadoop/input/kms-site.xml._COPYING_ is closed by DFSClient_NONM
APREDUCE_1769506109_1
2024-11-18 08:13:47,582 INFO hdfs.StateChange: BLOCK* allocate blk_1073741832_1008, replicas=172.17.0.2:9866 for /user/hadoop/input/map
red-site.xml._COPYING_
2024-11-18 08:13:47,594 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = fa
lse
2024-11-18 08:13:47,598 INFO datanode.DataNode: Receiving BP-712404385-172.17.0.2-1731917398991:blk_1073741832_1008 src: /172.17.0.2:44
136 dest: /172.17.0.2:9866
2024-11-18 08:13:47,619 INFO DataNode.clienttrace: src: /172.17.0.2:44136, dest: /172.17.0.2:9866, bytes: 841, op: HDFS_WRITE, cliID: D
FSClient_NONMAPREDUCE_1769506109_1, offset: 0, srvID: b5818208-c523-4fd6-9bd7-83b6c8a4c1bb, blockid: BP-712404385-172.17.0.2-1731917398
991:blk_1073741832_1008, duration(ns): 13822489
2024-11-18 08:13:47,622 INFO datanode.DataNode: PacketResponder: BP-712404385-172.17.0.2-1731917398991:blk_1073741832_1008, type=LAST_I
N_PIPELINE terminating
2024-11-18 08:13:47,628 INFO hdfs.StateChange: DIR* completeFile: /user/hadoop/input/mapred-site.xml._COPYING_ is closed by DFSClient_N
ONMAPREDUCE_1769506109_1
2024-11-18 08:13:47,680 INFO hdfs.StateChange: BLOCK* allocate blk_1073741833_1009, replicas=172.17.0.2:9866 for /user/hadoop/input/yar
n-site.xml._COPYING_
2024-11-18 08:13:47,689 INFO sasl.SaslDataTransferClient: SASL encryption trust check: localHostTrusted = false, remoteHostTrusted = fa
lse
2024-11-18 08:13:47,693 INFO datanode.DataNode: Receiving BP-712404385-172.17.0.2-1731917398991:blk_1073741833_1009 src: /172.17.0.2:44
144 dest: /172.17.0.2:9866
2024-11-18 08:13:47,708 INFO DataNode.clienttrace: src: /172.17.0.2:44144, dest: /172.17.0.2:9866, bytes: 1031, op: HDFS_WRITE, cliID:
DFSClient_NONMAPREDUCE_1769506109_1, offset: 0, srvID: b5818208-c523-4fd6-9bd7-83b6c8a4c1bb, blockid: BP-712404385-172.17.0.2-173191739
8991:blk_1073741833_1009, duration(ns): 8853318
2024-11-18 08:13:47,709 INFO datanode.DataNode: PacketResponder: BP-712404385-172.17.0.2-1731917398991:blk_1073741833_1009, type=LAST_I
N_PIPELINE terminating
2024-11-18 08:13:47,716 INFO hdfs.StateChange: DIR* completeFile: /user/hadoop/input/yarn-site.xml._COPYING_ is closed by DFSClient_NON
MAPREDUCE_1769506109_1
root@9f3066d6281e:/#
```

hadoop jar $HADOOP_HOME/share/hadoop/mapreduce/hadoop-mapreduce-examples-*.jar wordcount /user/hadoop/input /user/hadoop/output


```
                HDFS: Number of read operations=143
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=12
                HDFS: Number of bytes read erasure-coded=0
        Map-Reduce Framework
                Map input records=751
                Map output records=3063
                Map output bytes=38519
                Map output materialized bytes=21327
                Input split bytes=1104
                Combine input records=3063
                Combine output records=1223
                Reduce input groups=588
                Reduce shuffle bytes=21327
                Reduce input records=1223
                Reduce output records=588
                Spilled Records=2446
                Shuffled Maps =9
                Failed Shuffles=0
                Merged Map outputs=9
                GC time elapsed (ms)=5
                Total committed heap usage (bytes)=7185367040
        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=28589
        File Output Format Counters
                Bytes Written=10327
root@9f3066d6281e:/#
```

hdfs dfs -cat /user/hadoop/output/part-r-00000

type="text/xsl" 4
u:%user:%user   1
under   28
unique   1
updating   1
use   11
used   24
user   48
user.   2
user?   1
users   24
users,wheel".   21
uses   2
using   1
v2   1
valid.   1
value   30
value,   2
values   2
version="1.0"   5
version="1.0"?> 3
via   1
well   1
when   3
which   10
while   1
who   3
will   12
with   28
work   1
writing,   9
you   10
zero   2
root@9f3066d6281e:/#

http://localhost:9870

http://localhost:8088/cluster

All Applications

Cluster Metrics

Apps Submitted	Apps Pending	Apps Running	Apps Completed	Containers Running	Memory Used	Memory Total	Memory Reserved	VCores Used	VCores Total
0	0	0	0	0	0 B	8 GB	0 B	0	8

Cluster Nodes Metrics

Active Nodes	Decommissioning Nodes	Decommissioned Nodes	Lost Nodes	Unhealthy Nodes	Rebooted Nodes	
1	0	0	0	0	0	0

Scheduler Metrics

Scheduler Type	Scheduling Resource Type	Minimum Allocation	Maximum Allocation	Maximum Cluster Appli...
Capacity Scheduler	[memory-mb (unit=Mi), vcores]	<memory:1024, vCores:1>	<memory:8192, vCores:4>	0

Show 20 ∨ entries　　Search:

ID	User	Name	Application Type	Queue	Application Priority	StartTime	LaunchTime	FinishTime	State	FinalStatus	Running Containers	Allocated CPU VCores	Allocated Memory MB	Reserved CPU VCores	Reserved Memory MB	% of Queue	% of Cluster	Progress
								No data available in table										

Showing 0 to 0 of 0 entries　　First