192110722

T. Venkat Harsha Vardhan

39. Install Hadoop 2.x and configure the Name Node and Data Node.

Terminal output (Apache Hadoop Distribution):

```
        at org.apache.hadoop.hdfs.server.datanode.StorageLocation.check(StorageLocation.java:239)
        at org.apache.hadoop.hdfs.server.datanode.StorageLocation.check(StorageLocation.java:52)
        at org.apache.hadoop.hdfs.server.datanode.checker.ThrottledAsyncChecker$1.call(ThrottledAsyncChecker.java:142)
        at org.apache.hadoop.thirdparty.com.google.common.util.concurrent.TrustedListenableFutureTask$TrustedFutureInter
ruptibleTask.runInterruptibly(TrustedListenableFutureTask.java:125)
        at org.apache.hadoop.thirdparty.com.google.common.util.concurrent.InterruptibleTask.run(InterruptibleTask.java:6
9)
        at org.apache.hadoop.thirdparty.com.google.common.util.concurrent.TrustedListenableFutureTask.run(TrustedListena
bleFutureTask.java:78)
        at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1149)
        at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:624)
        at java.lang.Thread.run(Thread.java:748)
2023-08-30 19:59:49,644 ERROR datanode.DataNode: Exception in secureMain
org.apache.hadoop.util.DiskChecker$DiskErrorException: Too many failed volumes - current valid volumes: 0, volumes confi
gured: 1, volumes failed: 1, volume failures tolerated: 0
        at org.apache.hadoop.hdfs.server.datanode.checker.StorageLocationChecker.check(StorageLocationChecker.java:233)
        at org.apache.hadoop.hdfs.server.datanode.DataNode.makeInstance(DataNode.java:3141)
        at org.apache.hadoop.hdfs.server.datanode.DataNode.instantiateDataNode(DataNode.java:3054)
        at org.apache.hadoop.hdfs.server.datanode.DataNode.createDataNode(DataNode.java:3098)
        at org.apache.hadoop.hdfs.server.datanode.DataNode.secureMain(DataNode.java:3242)
        at org.apache.hadoop.hdfs.server.datanode.DataNode.main(DataNode.java:3266)
2023-08-30 19:59:49,648 INFO util.ExitUtil: Exiting with status 1: org.apache.hadoop.util.DiskChecker$DiskErrorException
: Too many failed volumes - current valid volumes: 0, volumes configured: 1, volumes failed: 1, volume failures tolerate
d: 0
2023-08-30 19:59:49,658 INFO datanode.DataNode: SHUTDOWN_MSG:
/************************************************************
SHUTDOWN_MSG: Shutting down DataNode at PRAVEENKUMAR/192.168.176.1
************************************************************/

C:\Users\prave\Desktop\h\hadoop-3.3.6\hadoop-3.3.6\sbin>
```

```
        at org.apache.hadoop.hdfs.server.namenode.NameNode.main(NameNode.java:1847)
2023-08-30 19:59:59,031 INFO common.Util: Assuming 'file' scheme for path C:\Users\prave\Desktop\h\hadoop-3.3.6\hadoop-3
.3.6\data\namenode in configuration.
2023-08-30 19:59:59,046 INFO namenode.LeaseManager: Number of blocks under construction: 0
2023-08-30 19:59:59,140 INFO blockmanagement.DatanodeAdminDefaultMonitor: Initialized the Default Decommission and Maint
enance monitor
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Start MarkedDeleteBlockScrubber thread
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: initializing replication queues
2023-08-30 19:59:59,141 INFO hdfs.StateChange: STATE* Leaving safe mode after 0 secs
2023-08-30 19:59:59,141 INFO hdfs.StateChange: STATE* Network topology has 0 racks and 0 datanodes
2023-08-30 19:59:59,141 INFO hdfs.StateChange: STATE* UnderReplicatedBlocks has 0 blocks
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Total number of blocks            = 0
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Number of invalid blocks          = 0
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Number of under-replicated blocks = 0
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Number of  over-replicated blocks = 0
2023-08-30 19:59:59,141 INFO blockmanagement.BlockManager: Number of blocks being written    = 0
2023-08-30 19:59:59,141 INFO hdfs.StateChange: STATE* Replication Queue initialization scan for invalid, over- and under
-replicated blocks completed in 2 msec
2023-08-30 19:59:59,205 INFO ipc.Server: IPC Server Responder: starting
2023-08-30 19:59:59,205 INFO ipc.Server: IPC Server listener on 9000: starting
2023-08-30 19:59:59,221 INFO namenode.NameNode: NameNode RPC up at: localhost/127.0.0.1:9000
2023-08-30 19:59:59,221 INFO namenode.FSNamesystem: Starting services required for active state
2023-08-30 19:59:59,221 INFO namenode.FSDirectory: Initializing quota with 12 thread(s)
2023-08-30 19:59:59,237 INFO namenode.FSDirectory: Quota initialization completed in 10 milliseconds
name space=1
storage space=0
storage types=RAM_DISK=0, SSD=0, DISK=0, ARCHIVE=0, PROVIDED=0
2023-08-30 19:59:59,237 INFO blockmanagement.CacheReplicationMonitor: Starting CacheReplicationMonitor with interval 300
00 milliseconds
```

File Explorer — hadoop: C: > h > hadoop-3.3.6 > hadoop-3.3.6 > etc > hadoop

Name	Date modified	Type	Size
shellprofile.d	18-06-2023 13:52	File folder	
capacity-scheduler.xml	18-06-2023 14:20	XML Source File	9 KB
configuration.xsl	18-06-2023 14:21	XSL Stylesheet	2 KB
container-executor.cfg	18-06-2023 14:20	Configuration Sou...	3 KB
core-site.xml	30-08-2023 13:26	XML Source File	1 KB
hadoop-env.cmd	30-08-2023 13:32	Windows Comma...	4 KB
hadoop-env.sh	18-06-2023 14:38	Shell Script	17 KB
hadoop-metrics2.properties	18-06-2023 13:52	Properties Source ...	4 KB
hadoop-policy.xml	18-06-2023 13:52	XML Source File	12 KB
hadoop-user-functions.sh.example	18-06-2023 13:52	EXAMPLE File	4 KB
hdfs-rbf-site.xml	18-06-2023 14:00	XML Source File	1 KB
hdfs-site.xml	30-08-2023 13:28	XML Source File	2 KB
httpfs-env.sh	18-06-2023 13:59	Shell Script	2 KB
httpfs-log4j.properties	18-06-2023 13:59	Properties Source ...	2 KB
httpfs-site.xml	18-06-2023 13:59	XML Source File	1 KB
kms-acls.xml	18-06-2023 13:54	XML Source File	4 KB
kms-env.sh	18-06-2023 13:54	Shell Script	2 KB
kms-log4j.properties	18-06-2023 13:54	Properties Source ...	2 KB
kms-site.xml	18-06-2023 13:54	XML Source File	1 KB

VS Code — hdfs-site.xml
C: > Users > prave > Desktop > h > hadoop-3.3.6 > hadoop-3.3.6 > etc > hadoop > hdfs-site.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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  You may obtain a copy of the License at

    http://www.apache.org/licenses/LICENSE-2.0

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  distributed under the License is distributed on an "AS IS" BASIS,
  WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
  See the License for the specific language governing permissions and
  limitations under the License. See accompanying LICENSE file.
-->

<!-- Put site-specific property overrides in this file. -->

<configuration>
<property>
<name>dfs.replication</name>
<value>1</value>
</property>
<property>
<name>dfs.namenode.name.dir</name>
<value>C:\Users\prave\Desktop\h\hadoop-3.3.6\hadoop-3.3.6\data\namenode</v
</property>
<property>
<name>dfs.datanode.data.dir</name>
<value>C:\Users\prave\Desktop\h\hadoop-3.3.6\hadoop-3.3.6\data\datanode</v
</property>
</configuration>
```

Overview 'localhost:9000' (✓active)

Started:	Wed Aug 30 17:34:53 +0530 2023
Version:	3.3.6, r1be78238728da9266a4f88195058f08fd012bf9c
Compiled:	Sun Jun 18 13:52:00 +0530 2023 by ubuntu from (HEAD detached at release-3.3.6-RC1)
Cluster ID:	CID-e11fe230-6197-47cb-9b92-e284a3409b2b
Block Pool ID:	BP-10632862-192.168.176.1-1693397036208

Summary

Security is off.

Safemode is off.

1 files and directories, 0 blocks (0 replicated blocks, 0 erasure coded block groups) = 1 total filesystem object(s).

Heap Memory used 45.24 MB of 192 MB Heap Memory. Max Heap Memory is 889 MB.

Non Heap Memory used 46.35 MB of 48.09 MB Commited Non Heap Memory. Max Non Heap Memory is <unbounded>.

Configured Capacity:	0 B
Configured Remote Capacity:	0 B

Summary

Security is off.

Safemode is off.

1 files and directories, 0 blocks (0 replicated blocks, 0 erasure coded block groups) = 1 total filesystem object(s).

Heap Memory used 47.66 MB of 191 MB Heap Memory. Max Heap Memory is 889 MB.

Non Heap Memory used 46.44 MB of 47.96 MB Commited Non Heap Memory. Max Non Heap Memory is <unbounded>.

Configured Capacity:	0 B
Configured Remote Capacity:	0 B
DFS Used:	0 B (100%)
Non DFS Used:	0 B
DFS Remaining:	0 B (0%)
Block Pool Used:	0 B (100%)
DataNodes usages% (Min/Median/Max/stdDev):	0.00% / 0.00% / 0.00% / 0.00%
Live Nodes	0 (Decommissioned: 0, In Maintenance: 0)
Dead Nodes	0 (Decommissioned: 0, In Maintenance: 0)
Decommissioning Nodes	0
Entering Maintenance Nodes	0
Total Datanode Volume Failures	0 (0 B)
Number of Under-Replicated Blocks	0