Reg No: 210701097
Name: Jeyapriyan M

Exp No: 1 Downloading and installing Hadoop, Understanding different Hadoop modes, Startup scripts, Configuration files.

$ nano ~/.bashrc

$ nano $HADOOP_HOME/etc/hadoop/hadoop-env.sh

$nano $HADOOP_HOME/etc/hadoop/core-site.xml

```
                                                                    hadoop@fedora:~/hadoop/etc/hadoop
  GNU nano 7.2                                                          core-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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  limitations under the License. See accompanying LICENSE file.
-->

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

<configuration>
<property>
<name>fs.default.name</name>
<value>hdfs://localhost:9000</value>
</property>

<property>
<name>hadoop.tmp.dir</name>
<value>/home/hadoop/hadoop/tmp</value>
</property>
</configuration>
```

$nano $HADOOP_HOME/etc/hadoop/hdfs-site.xml

```
                                                                    hadoop@fedora:~/hadoop/etc/hadoop
  GNU nano 7.2                                                          hdfs-site.xml
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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  WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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  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.name.dir</name>
  <value>file:///home/hadoop/hadoop/hadoopdata/hdfs/namenode</value>
</property>

<property>
  <name>dfs.data.dir</name>
  <value>file:///home/hadoop/hadoop/hadoopdata/hdfs/datanode</value>
</property>
</configuration>
```

$nano $HADOOP_HOME/etc/hadoop/mapred-site.xml

```
                                                                                    hadoop@fedora:~/hadoop/etc/hadoop
  GNU nano 7.2                                                                          mapred-site.xml
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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  limitations under the License. See accompanying LICENSE file.
-->

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

<configuration>
 <property>
<name>mapred.job.tracker</name>
<value>localhost:9001</value>
</property>
<property>
<name>mapreduce.framework.name</name>
<value>yarn</value>
</property>
<property>
<name>mapreduce.application.classpath</name>
<value>$HADOOP_MAPRED_HOME/share/hadoop/mapreduce/*:$HADOOP_MAPRED_HOME/share/hadoop/mapreduce/lib/*</value>
</property>
</configuration>
```

$nano $HADOOP_HOME/etc/hadoop/yarn-site.xml

```
                                                                                    hadoop@fedora:~/hadoop/etc/hadoop
  GNU nano 7.2                                                                          yarn-site.xml
<?xml version="1.0"?>
<!--
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  you may not use this file except in compliance with the License.
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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.
-->
<configuration>
<property>
<name>yarn.nodemanager.aux-services</name>
<value>mapreduce_shuffle</value>
</property>
<property>
<name>yarn.nodemanager.env-whitelist</name>
<value>JAVA_HOME,HADOOP_COMMON_HOME,HADOOP_HDFS_HOME,HADOOP_CONF_DIR,CLASSPATH_PREPEND_DISTCACHE,HADOOP_YARN_HOME,HADOOP_MAPRED_HOME,HADOOP_HOME</value>
</property>
</configuration>
```

$ start-all.sh

```
hadoop@fedora:~/hadoop/sbin$ ./start-all.sh
WARNING: Attempting to start all Apache Hadoop daemons as hadoop in 10 seconds.
WARNING: This is not a recommended production deployment configuration.
WARNING: Use CTRL-C to abort.
Starting namenodes on [localhost]
localhost: bash: unse: command not found
Starting datanodes
localhost: bash: unse: command not found
Starting secondary namenodes [fedora]
fedora: bash: unse: command not found
Starting resourcemanager
Starting nodemanagers
localhost: bash: unse: command not found
```

$ jps

```
localhost:~/ bash: unset command not f
hadoop@fedora:~/hadoop/sbin$ jps
4593 Jps
3764 SecondaryNameNode
3416 DataNode
3210 NameNode
4026 ResourceManager
4175 NodeManager
hadoop@fedora:~/hadoop/sbin$
```

localhost:9870

Oct 20 10:39 PM

Restore Session × Namenode information × +

localhost:9870/dfshealth.html#tab-overview

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Hadoop   Overview   Datanodes   Datanode Volume Failures   Snapshot   Startup Progress   Utilities ▾

Overview 'localhost:9000' (✓active)

Started:	Sun Oct 20 22:35:19 +0530 2024
Version:	3.4.0, rbd8b77f398f626bb7791783192ee7a5dfaeec760
Compiled:	Mon Mar 04 12:05:00 +0530 2024 by root from (HEAD detached at release-3.4.0-RC3)
Cluster ID:	CID-16485073-7091-4369-9ccc-b802a280676f
Block Pool ID:	BP-105291322-10.0.2.15-1724955421162

Summary

Security is off.

Safemode is off.

63 files and directories, 39 blocks (39 replicated blocks, 0 erasure coded block groups) = 102 total filesystem object(s).

Heap Memory used 50.4 MB of 133 MB Heap Memory. Max Heap Memory is 748 MB.

Non Heap Memory used 54.43 MB of 57.63 MB Commited Non Heap Memory. Max Non Heap Memory is <unbounded>.

Configured Capacity:	29 GB
Configured Remote Capacity:	0 B
DFS Used:	44.07 MB (0.15%)
Non DFS Used:	8.4 GB
DFS Remaining:	19.97 GB (68.88%)
Block Pool Used:	44.07 MB (0.15%)
DataNodes usages% (Min/Median/Max/stdDev):	0.15% / 0.15% / 0.15% / 0.00%
Live Nodes	1 (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	7

localhost:8088