

Install, configure and run Hadoop and HDFS

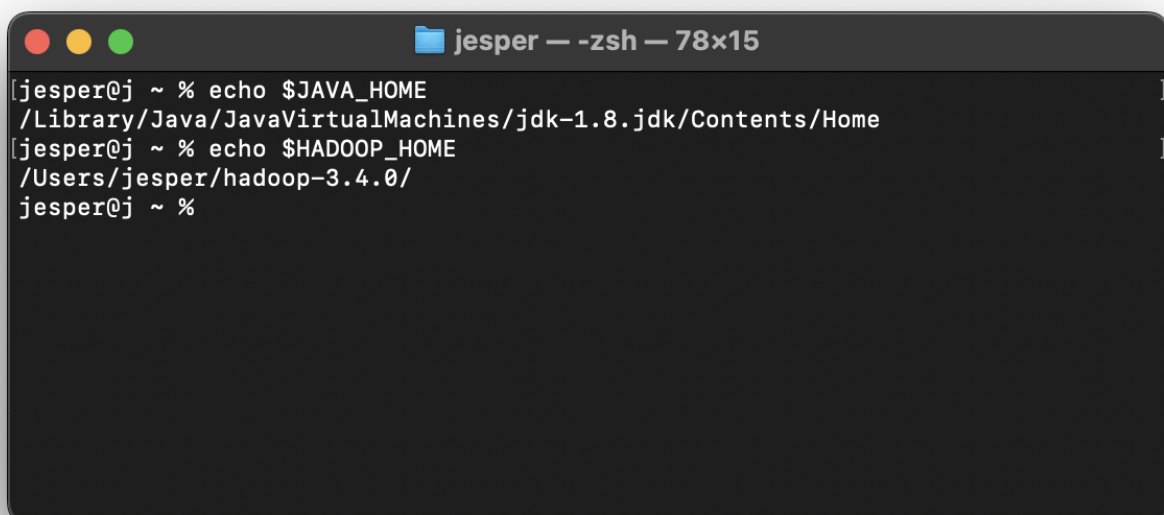
Aim:

To Install, configure and run Hadoop and HDFS.

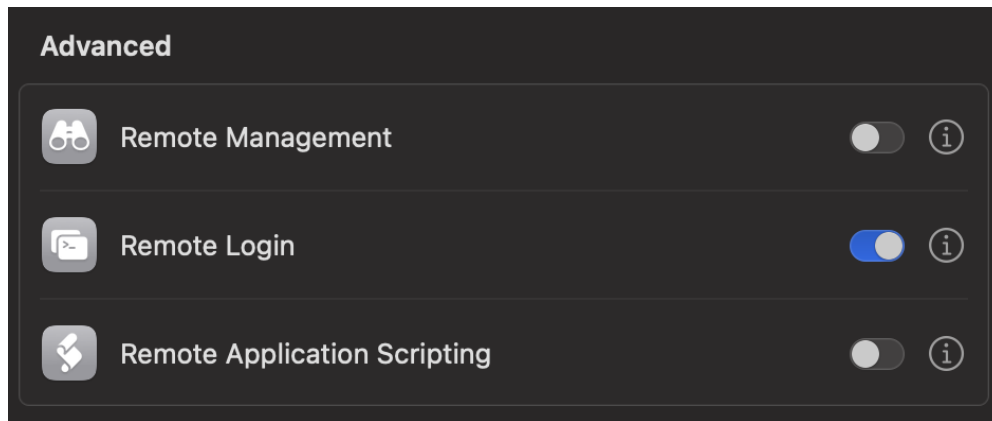
Procedure:

1. Install Java from Oracle website.
2. Download Hadoop and configure it.
3. Set up Hadoop path in .zprofile as HADOOP_HOME.
4. Set up Java path in .zprofile as JAVA_HOME.
5. Save and apply the changes using source command.
6. Start Hadoop using start-all.sh command.
7. Open browser and visit localhost:9870.

Output:

A terminal window titled 'jesper — -zsh — 78x15' with standard macOS window controls (red, yellow, green buttons). The terminal shows the following commands and output:

```
[jesper@j ~ % echo $JAVA_HOME  
/Library/Java/JavaVirtualMachines/jdk-1.8.jdk/Contents/Home  
[jesper@j ~ % echo $HADOOP_HOME  
/Users/jesper/hadoop-3.4.0/  
jesper@j ~ %
```



```
jesper — -zsh — 78x15
[jesper@j ~ % start-all.sh
WARNING: Attempting to start all Apache Hadoop daemons as jesper in 10 seconds
.
WARNING: This is not a recommended production deployment configuration.
WARNING: Use CTRL-C to abort.
Starting namenodes on [0.0.0.0]
Starting datanodes
Starting secondary namenodes [j.local]
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further deta
ils.
Starting resourcemanager
Starting nodemanagers
jesper@j ~ % ]
```

```
jesper — -zsh — 78x15
[jesper@j ~ % jps
4752 ResourceManager
4852 NodeManager
4933 Jps
4310 NameNode
4558 SecondaryNameNode
4415 DataNode
jesper@j ~ % ]
```

localhost

HadoopOverviewDatanodesDatanode Volume FailuresSnapshotStartup ProgressUtilities

Overview '0.0.0.0:9000' (✓active)

Started:	Wed Sep 04 18:49:52 +0530 2024
Version:	3.4.0, rbd8b77f398f626bb7791783192ee7a5dfaec760
Compiled:	Mon Mar 04 12:05:00 +0530 2024 by root from (HEAD detached at release-3.4.0-RC3)
Cluster ID:	CID-5899cb42-429e-407c-9cfc-1017ae6d678f
Block Pool ID:	BP-705840454-127.0.0.1-1723807893775

Summary

Security is off.
Safemode is off.

96 files and directories, 38 blocks (38 replicated blocks, 0 erasure coded block groups) = 134 total filesystem object(s).

Heap Memory used 224.09 MB of 426 MB Heap Memory. Max Heap Memory is 3.56 GB.

Non Heap Memory used 54.94 MB of 56.88 MB Committed Non Heap Memory. Max Non Heap Memory is <unbounded>.

Configured Capacity:	460.43 GB
Configured Remote Capacity:	0 B
DFS Used:	43.98 MB (0.01%)

localhost

HadoopOverviewDatanodesDatanode Volume FailuresSnapshotStartup ProgressUtilities

Browse Directory

Go! 📁 🔍 📄 📊

Show 25 entries Search:

<input type="checkbox"/>	Permission	Owner	Group	Size	Last Modified	Replication	Block Size	Name	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 19 10:46	0	0 B	ex-2	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 23 08:50	0	0 B	ex-3	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 23 09:03	0	0 B	ex-3_test	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 16 17:15	0	0 B	samp	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 23 09:44	0	0 B	three	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 23 10:03	0	0 B	tmp	<input type="checkbox"/>
<input type="checkbox"/>	drwxr-xr-x	jesper	supergroup	0 B	Aug 29 10:21	0	0 B	user	<input type="checkbox"/>

Showing 1 to 7 of 7 entries Previous 1 Next

Hadoop, 2024.

Result:

Thus the Installation, Configuration and run Hadoop and HDFS is successfully executed.