Exercise: 02 210701134

Install, configure and run Hadoop and HDFS

Aim:

To Install, configure and run Hadoop and HDFS.

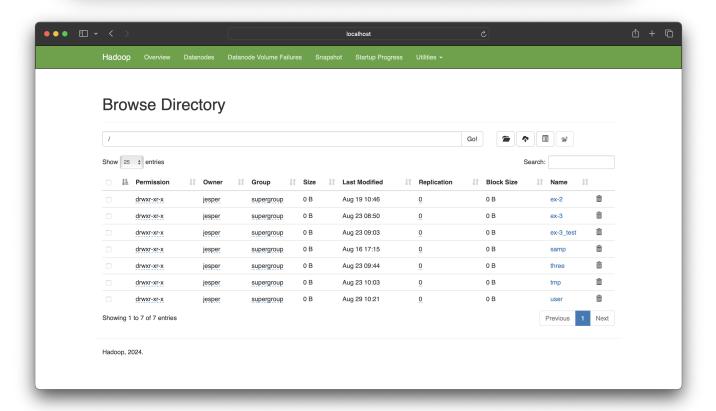
Procedure:

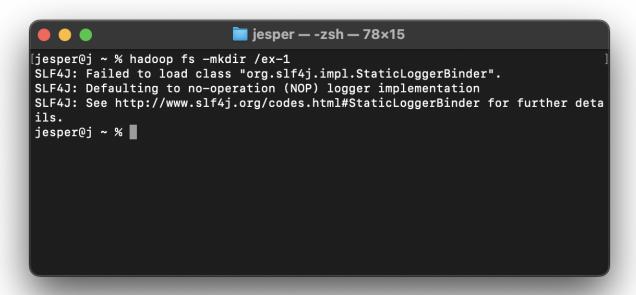
- 1. Open the terminal and start Hadoop using start-all.sh command
- 2. Open the browser and go to the URL localhost:9870.
- 3. In the terminal using the command hadoop fs -mkdir /user create a directory called user.
- 4. Upload the input.txt file to hdfs using the command hadoop fs -put input.txt /user.
- 5. To perform the mapreduce operation using the command hadoop jar /path/to/hadoop-streaming.jar \
- $\hbox{-files/path/to/mapper.py,/path/to/reducer.py} \\ \\$
- -input/path/to/input\
- $\hbox{-output/path/to/output} \setminus$
- -mapper mapper.py\
- -reducer reducer.py
- 5. Check the output using the command hadoop fs -cat /user/output/part-00000.

Output:

```
jesper—-zsh—78×15

[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 details.
Starting resourcemanager
Starting nodemanagers
jesper@j ~ % □
```





```
jesper — -zsh — 92x15

[jesper@j ~ % hadoop fs -put /Users/jesper/Documents/sem-7/DA/lab/ex-1/input.txt /ex-1
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 details.
jesper@j ~ %
```

```
jesper@j ~ % hadoop jar /Users/jesper/hadoop-3.4.0/share/hadoop/tools/lib/hadoop-streaming-3.4.0.jar\
-files /Users/jesper/Documents/sem-7/DA/lab/ex-1/mapper.py,/Users/jesper/Documents/sem-7/DA/lab/ex-1/reducer.py\
-input /ex-1/output\
-output /ex-1/output\
-mapper mapper.py\
-reducer reducer.py

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 details.
packageJobJar: [/var/folders/19/jpyrrxsn5hd30rmbdjy22q4w0000gn/T/hadoop-unjar73079381717837866/] [] /var/folders/19/jpyrrxsn5hd30rmbdjy22q4w0000gn/T/streamjob4036673018412328904.jar tmpDir=null
jesper@j ~ %
```

Result:

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