Hadoop Average temperature

1BM22CS158

```
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:-$ 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: namenode is running as process 5290. Stop it first and ensure /tmp/hadoop-hadoop-namenode.pid file is empty before retry.

Starting datanodes
localhost: datanode is running as process 5435. Stop it first and ensure /tmp/hadoop-hadoop-datanode.pid file is empty before retry.

Starting secondary namenodes [bmscecse-HP-Elite-Tower-800-G9-Desktop-PC]

bmscecse-HP-Elite-Tower-800-G9-Desktop-PC: secondarynamenode is running as process 5699. Stop it first and ensure /tmp/hadoop-hadoop-secondarynamenode.pid file is empty before retry.

Starting resourcemanager
resourcemanager is running as process 6069. Stop it first and ensure /tmp/hadoop-nadoop-resourcemanager.pid file is empty before retry.

Starting nodemanagers
localhost: nodemanager is running as process 6237. Stop it first and ensure /tmp/hadoop-nadoop-nodemanager.pid file is empty before retry.
```

hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~S

hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~\$ 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: namenode is running as process 5290. Stop it first and ensure /tmp/hadoop-hadoop-namenode.pid file is empty before retry.
Starting datanodes
localhost: datanode is running as process 5435. Stop it first and ensure /tmp/hadoop-hadoop-datanode.pid file is empty before retry.
Starting secondary namenodes [bmscecse-HP-Elite-Tower-800-G9-Desktop-PC]
bmscecse-HP-Elite-Tower-800-G9-Desktop-PC: secondarynamenode is running as process 5699. Stop it first and ensure /tmp/hadoop-hadoop-secondarynamenode.pid file is empty before retry.
Starting resourcemanager
resourcemanager is running as process 6069. Stop it first and ensure /tmp/hadoop-hadoop-resourcemanager.pid file is empty before retry.
Starting nodemanagers
localhost: nodemanager is running as process 6237. Stop it first and ensure /tmp/hadoop-hadoop-nodemanager.pid file is empty before retry.
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:-$ hadoop fs -copyFromLocal /home/hadoop/Desktop/1901.txt /shuraim/temperature.txt
```

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hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:-S hadoop jar /home/hadoop/Desktop/TemperatureAvg.jar AverageDriver /shuraim/temperature.txt /shuraim/tempOut
2025-05-06 15:22:59.024 INFO impl.MetricsConfig: Loaded properties from hadoop-metrics2.properties
2025-05-06 15:22:59.064 INFO impl.MetricsSystemImpl: Scheduled Metric snapshot period at 10 second(s).
2025-05-06 15:22:59,065 INFO impl.MetricsSystemImpl: JobTracker metrics system started
2025-05-06 15:22:59,127 WARN mapreduce. JobResource Uploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
2025-05-06 15:22:59,179 INFO input.FileInputFormat: Total input files to process: 1
2025-05-06 15:22:59.207 INFO mapreduce.JobSubmitter: number of splits:1
2025-05-06 15:22:59,272 INFO mapreduce.JobSubmitter: Submitting tokens for job: job local1881755701 0001,
2025-05-06 15:22:59,272 INFO mapreduce.JobSubmitter: Executing with tokens: []
2025-05-06 15:22:59,335 INFO mapreduce. Job: The url to track the job: http://localhost:8080/
2025-05-06 15:22:59,335 INFO mapreduce.Job: Running job: job local1881755701 0001
2025-05-06 15:22:59.336 INFO mapred.LocalJobRunner: OutputCommitter set in config null
2025-05-06 15:22:59,339 INFO output.PathOutputCommitterFactory: No output committer factory defined, defaulting to FileOutputCommitterFactory
2025-05-06 15:22:59,340 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 2
2025-05-06 15:22:59,340 INFO output.FileOutputCommitter: FileOutputCommitter skip cleanup temporary folders under output directory:false, ignore cleanup failures: false
2025-05-06 15:22:59,340 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter
2025-05-06 15:22:59,430 INFO mapred.LocalJobRunner: Waiting for map tasks
2025-05-06 15:22:59.431 INFO mapred.LocalJobRunner: Starting task: attempt local1881755701 0001 m 0000000 0
2025-05-06 15:22:59.442 INFO output.PathOutputCommitterFactory: No output committer factory defined, defaulting to FileOutputCommitterFactory
2025-05-06 15:22:59.442 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 2
2025-05-06 15:22:59,442 INFO output.FileOutputCommitter: FileOutputCommitter skip cleanup temporary folders under output directory:false, ignore cleanup failures: false
2025-05-06 15:22:59,451 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]
2025-05-06 15:22:59,453 INFO mapred.MapTask: Processing split: hdfs://localhost:9000/shu<u>raim/temperature.txt:0+888190</u>
2025-05-06 15:22:59.488 INFO mapred.MapTask: (EOUATOR) 0 kvi 26214396(104857584)
2025-05-06 15:22:59,488 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100
2025-05-06 15:22:59,488 INFO mapred.MapTask: soft limit at 83886080
2025-05-06 15:22:59,488 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600
2025-05-06 15:22:59,488 INFO mapred.MapTask: kvstart = 26214396; length = 6553600
2025-05-06 15:22:59.490 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTaskSMapOutputBuffer
2025-05-06 15:22:59.575 INFO mapred.LocalJobRunner:
2025-05-06 15:22:59.576 INFO mapred.MapTask: Starting flush of map output
2025-05-06 15:22:59,576 INFO mapred.MapTask: Spilling map output
2025-05-06 15:22:59,576 INFO mapred.MapTask: bufstart = 0; bufend = 59076; bufvoid = 104857600
2025-05-06 15:22:59.576 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26188144(104752576); length = 26253/6553600
2025-05-06 15:22:59,585 INFO mapred.MapTask: Finished spill 0
2025-05-06 15:22:59,591 INFO mapred. Task: Task:attempt local1881755701 0001 m 000000 0 is done. And is in the process of committing
2025-05-06 15:22:59,593 INFO mapred.LocalJobRunner: map
2025-05-06 15:22:59.593 INFO mapred.Task: Task 'attempt local1881755701 0001 m 000000 0' done.
2025-05-06 15:22:59.596 INFO mapred.Task: Final Counters for attempt local1881755701 0001 m 000000 0: Counters: 23
        File System Counters
                FILE: Number of bytes read=4258
                FILE: Number of bytes written=716898
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=888190
                HDFS: Number of bytes written=0
                HDFS: Number of read operations=5
                HDFS: Number of large read operations=0
```

HDFS: Number of write operations=1
HDFS: Number of bytes read erasure-coded=0

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Hadoop Mean Max temperature

```
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~S hadoop fs -ls /shuraim/tempOut
Found 2 items
-rw-r--r-- 1 hadoop supergroup
                                         0 2025-05-06 15:22 /shuraim/tempOut/ SUCCESS
-rw-r--r-- 1 hadoop supergroup
                                         8 2025-05-06 15:22 /shuraim/tempOut/part-r-00000
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$ hadoop fs -cat /shuraim/tempOut/part-r-00000
1901 46
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~S hadoop jar /home/hadoop/Desktop/MeanMaxTemp.jar MeanmaxDriver /shuraim/temperature.txt /shuraim/tempOut1
Exception in thread "main" java.lang.ClassNotFoundException: MeanmaxDriver
        at iava.base/iava.net.URLClassLoader.findClass(URLClassLoader.iava:476)
        at java.base/java.lang.ClassLoader.loadClass(ClassLoader.java:594)
        at java.base/java.lang.ClassLoader.loadClass(ClassLoader.java:527)
        at java.base/java.lang.Class.forNameO(Native Method)
        at java.base/java.lang.Class.forName(Class.java:398)
        at org.apache.hadoop.util.RunJar.run(RunJar.java:321)
        at org.apache.hadoop.util.RunJar.main(RunJar.java:241)
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$ hadoop jar /home/hadoop/Desktop/MeanMaxTemp.jar MeanMaxDriver /shuraim/temperature.txt /shuraim/temp0ut1
2025-05-06 15:24:42.211 INFO impl.MetricsConfig: Loaded properties from hadoop-metrics2.properties
2025-05-06 15:24:42.254 INFO impl.MetricsSystemImpl: Scheduled Metric snapshot period at 10 second(s).
2025-05-06 15:24:42,254 INFO impl.MetricsSystemImpl: JobTracker metrics system started
2025-05-06 15:24:42,315 WARN mapreduce. JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
2025-05-06 15:24:42,368 INFO input.FileInputFormat: Total input files to process: 1
2025-05-06 15:24:42.396 INFO mapreduce.JobSubmitter: number of splits:1
2025-05-06 15:24:42,461 INFO mapreduce.JobSubmitter: Submitting tokens for job: job local78876621 0001
2025-05-06 15:24:42,461 INFO mapreduce.JobSubmitter: Executing with tokens: []
2025-05-06 15:24:42,523 INFO mapreduce.Job: The url to track the job: http://localhost:8080/
2025-05-06 15:24:42,523 INFO mapreduce.Job: Running job: job local78876621 0001
2025-05-06 15:24:42.524 INFO mapred.LocalJobRunner: OutputCommitter set in config null
2025-05-06 15:24:42.527 INFO output.PathOutputCommitterFactory: No output committer factory defined, defaulting to FileOutputCommitterFactory
2025-05-06 15:24:42.528 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 2
2025-05-06 15:24:42,528 INFO output.FileOutputCommitter: FileOutputCommitter skip cleanup temporary folders under output directory:false, ignore cleanup failures: false
2025-05-06 15:24:42.528 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter
2025-05-06 15:24:42.578 INFO mapred.LocalJobRunner: Waiting for map tasks
2025-05-06 15:24:42.578 INFO mapred.LocalJobRunner: Starting task: attempt local78876621 0001 m 000000 0
2025-05-06 15:24:42,591 INFO output.PathOutputCommitterFactory: No output committer factory defined, defaulting to FileOutputCommitterFactory
2025-05-06 15:24:42,591 INFO output.FileOutputCommitter: File Output Committer Algorithm version is 2
2025-05-06 15:24:42,591 INFO output.FileOutputCommitter: FileOutputCommitter skip cleanup temporary folders under output directory:false, ignore cleanup failures: false
2025-05-06 15:24:42.600 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]
2025-05-06 15:24:42.602 INFO mapred.MapTask: Processing split: hdfs://localhost:9000/shuraim/temperature.txt:0+888190
2025-05-06 15:24:42,638 INFO mapred.MapTask: (EQUATOR) 0 kvi 26214396(104857584)
2025-05-06 15:24:42,638 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100
2025-05-06 15:24:42.638 INFO mapred.MapTask: soft limit at 83886080
2025-05-06 15:24:42.638 INFO mapred.MapTask: bufstart = 0: bufvoid = 104857600
2025-05-06 15:24:42.638 INFO mapred.MapTask: kvstart = 26214396: length = 6553600
2025-05-06 15:24:42,640 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer
```

2025-05-06 15:24:42,717 INFO mapred.LocalJobRunner:

```
Map-Reduce Framework
                Map input records=6565
                Map output records=6564
                Map output bytes=45948
                Map output materialized bytes=59082
                Input split bytes=110
                Combine input records=0
                Combine output records=0
                Reduce input groups=12
                Reduce shuffle bytes=59082
                Reduce input records=6564
                Reduce output records=12
                Spilled Records=13128
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=0
                Total committed heap usage (bytes)=1052770304
        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=888190
        File Output Format Counters
                Bytes Written=74
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$ hadoop fs -ls /shuraim/tempOut1
Found 2 items
-rw-r--r-- 1 hadoop supergroup
                                          0 2025-05-06 15:24 /shuraim/tempOut1/ SUCCESS
            1 hadoop supergroup
                                         74 2025-05-06 15:24 /shuraim/tempOut1/part-r-00000
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC: $ hadoop fs -cat /shuralm/tempOut1/part-r-00000
01
02
03
04
        44
05
        100
06
        168
07
        219
08
        198
09
        141
10
        100
11
        19
12
hadoop@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$
```