

## BDA LAB HADOOP PROGRAM-WORD COUNT

```
hduser@ubuntu: ~  
File Edit View Search Terminal Help  
hduser@ubuntu:~$ start-all.sh  
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh  
WARNING: An illegal reflective access operation has occurred  
WARNING: Illegal reflective access by org.apache.hadoop.security.authentication.util.KerberosUtil (file:/usr/local/hadoop/share/hadoop/common/lib/hadoop-auth-2.6.0.jar) to method sun.security.krb5.Config.  
getInstance()  
WARNING: Please consider reporting this to the maintainers of org.apache.hadoop.security.authentication.util.KerberosUtil  
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations  
WARNING: All illegal access operations will be denied in a future release  
20/12/08 23:29:35 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
Starting namenodes on [localhost]  
localhost: starting namenode, logging to /usr/local/hadoop/logs/hadoop-hduser-namenode-ubuntu.out  
localhost: starting datanode, logging to /usr/local/hadoop/logs/hadoop-hduser-datanode-ubuntu.out  
Starting secondary namenodes [0.0.0.0]  
0.0.0.0: starting secondarynamenode, logging to /usr/local/hadoop/logs/hadoop-hduser-secondarynamenode-ubuntu.out  
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20/12/08 23:30:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
starting yarn daemons  
starting resourcemanager, logging to /usr/local/hadoop/logs/yarn-hduser-resourcemanager-ubuntu.out  
localhost: starting nodemanager, logging to /usr/local/hadoop/logs/yarn-hduser-nodemanager-ubuntu.out  
hduser@ubuntu:~$ jps  
3745 Jps  
2949 SecondaryNameNode  
3350 NameNode  
2520 NameNode  
2681 DataNode  
3194 ResourceManager  
hduser@ubuntu:~$ cd $HADOOP_HOME  
hduser@ubuntu:~$ hadoop fs -mkdir /input  
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20/12/08 23:35:39 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
hduser@ubuntu:~$ hadoop fs -copyFromLocal /home/hduser/Desktop/file1.txt /input/test.txt  
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20/12/08 23:37:10 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
hduser@ubuntu:~$ hadoop jar /home/hduser/Desktop/wordcount.jar WordCount /input/test.txt /input/output/  
WARNING: An illegal reflective access operation has occurred  
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20/12/08 23:37:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
20/12/08 23:37:55 INFO Configuration.deprecation: session.id is deprecated. Instead, use dfs.metrics.session-id  
20/12/08 23:37:55 INFO jvm.JvmMetrics: Initializing JVM Metrics with processName=JobTracker, sessionId=  
20/12/08 23:37:56 INFO Input.FileInputFormat: Total input paths to process : 1  
20/12/08 23:37:57 INFO mapreduce.JobSubmitter: number of splits:1  
20/12/08 23:37:57 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_local2091817823_0001  
20/12/08 23:37:58 INFO mapreduce.Job: The url to track the job: http://localhost:8080/  
20/12/08 23:37:58 INFO mapreduce.Job: Running job: job_local2091817823_0001  
20/12/08 23:37:58 INFO mapred.LocalJobRunner: OutputCommitter set in config null  
20/12/08 23:37:58 INFO mapred.LocalJobRunner: OutputCommitter is org.apache.hadoop.mapreduce.lib.output.FileOutputCommitter  
20/12/08 23:37:58 INFO mapred.LocalJobRunner: Waiting for map tasks  
20/12/08 23:37:58 INFO mapred.LocalJobRunner: Starting task: attempt_local2091817823_0001_m_000000_0  
20/12/08 23:37:58 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]  
20/12/08 23:37:58 INFO mapred.MapTask: Processing split: hdfs://localhost:54310/input/test.txt:0+89  
20/12/08 23:37:59 INFO mapreduce.Job: Job job_local2091817823_0001 running in uber mode : false  
20/12/08 23:37:59 INFO mapred.MapTask: (EQUATOR) 0 kvs [26214396(104857584)  
20/12/08 23:37:59 INFO mapreduce.Job: map 0% reduce 0%  
20/12/08 23:37:59 INFO mapred.MapTask: mapreduce.task.io.sort.mb: 100  
20/12/08 23:37:59 INFO mapred.MapTask: soft limit at 83886080  
20/12/08 23:37:59 INFO mapred.MapTask: bufstart = 0; bufvoid = 104857600  
20/12/08 23:37:59 INFO mapred.MapTask: kvstart = 26214396; length = 6553600  
20/12/08 23:37:59 INFO mapred.MapTask: Map output collector class = org.apache.hadoop.mapred.MapTask$MapOutputBuffer  
20/12/08 23:38:00 INFO mapred.LocalJobRunner:  
20/12/08 23:38:00 INFO mapred.MapTask: Starting flush of map output  
20/12/08 23:38:00 INFO mapred.MapTask: Spilling map output  
20/12/08 23:38:00 INFO mapred.MapTask: bufstart = 0; bufend = 169; bufvoid = 104857600  
20/12/08 23:38:00 INFO mapred.MapTask: kvstart = 26214396(104857584); kvend = 26214320(104857280); length = 77/6553600  
20/12/08 23:38:00 INFO mapred.MapTask: Finished spill 0  
20/12/08 23:38:00 INFO mapred.Task: Task:attempt_local2091817823_0001_m_000000_0 is done. And is in the process of committing  
20/12/08 23:38:00 INFO mapred.LocalJobRunner: map  
20/12/08 23:38:00 INFO mapred.Task: Task 'attempt_local2091817823_0001_m_000000_0' done.  
20/12/08 23:38:00 INFO mapred.LocalJobRunner: Finishing task: attempt_local2091817823_0001_m_000000_0  
20/12/08 23:38:00 INFO mapred.LocalJobRunner: map task executor complete.  
20/12/08 23:38:00 INFO mapred.LocalJobRunner: Waiting for reduce tasks  
20/12/08 23:38:00 INFO mapred.LocalJobRunner: Starting task: attempt_local2091817823_0001_r_000000_0  
20/12/08 23:38:00 INFO mapred.Task: Using ResourceCalculatorProcessTree : [ ]  
20/12/08 23:38:00 INFO mapred.ReduceTask: Using ShuffleConsumerPlugin: org.apache.hadoop.mapreduce.task.reduce.Shuffle@2952889a  
20/12/08 23:38:00 INFO reduce.MergeManagerImpl: MergerManager: memoryLimit=375809632, maxSingleShuffleLimit=93952408, mergeThreshold=248034368, ioSortFactor=10, memToMemMergeOutputsThreshold=10  
20/12/08 23:38:00 INFO reduce.EventFetcher: attempt_local2091817823_0001_r_000000_0 Thread started: EventFetcher for Fetching Map Completion Events  
20/12/08 23:38:00 INFO mapreduce.Job: map 100% reduce 0%  
20/12/08 23:38:00 INFO reduce.LocalFetcher: localFetcher#1 about to shuffle output of map attempt_local2091817823_0001_m_000000_0 decomp: 111 len: 115 to MEMORY  
20/12/08 23:38:00 INFO reduce.InMemoryMapOutput: Read 111 bytes from map-output for attempt_local2091817823_0001_m_000000_0  
20/12/08 23:38:00 INFO reduce.MergeManagerImpl: closeInMemoryFile -> map-output of size: 111, inMemoryMapOutputs.size() -> 1, commitMemory -> 0, usedMemory -> 111  
20/12/08 23:38:01 INFO reduce.EventFetcher: EventFetcher is interrupted.. Returning  
20/12/08 23:38:01 INFO mapred.LocalJobRunner: 1 / 1 copied.  
20/12/08 23:38:01 INFO reduce.MergeManagerImpl: finalMerge called with 1 in-memory map-outputs and 0 on-disk map-outputs  
20/12/08 23:38:01 INFO mapred.Merger: Merging 1 sorted segments  
20/12/08 23:38:01 INFO mapred.Merger: Down to the last merge-pass, with 1 segments left of total size: 105 bytes  
20/12/08 23:38:01 INFO reduce.MergeManagerImpl: Merged 1 segments. 105 bytes to disk as part of reduce merge pass. 111
```

```

HDFS: Number of bytes written=69
HDFS: Number of read operations=13
HDFS: Number of large read operations=0
HDFS: Number of write operations=4

```

## Map-Reduce Framework

```

Map Input records=6
Map output records=20
Map output bytes=169
Map output materialized bytes=115
Input split bytes=102
Combine Input records=20
Combine output records=10
Reduce input groups=10
Reduce shuffle bytes=115
Reduce input records=10
Reduce output records=10
Spilled Records=20
Shuffled Maps =1
Failed Shuffles=0
Merged Map outputs=1
GC time elapsed (ms)=47
CPU time spent (ms)=0
Physical memory (bytes) snapshot=0
Virtual memory (bytes) snapshot=0
Total committed heap usage (bytes)=333447168

```

## 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=89
```

## File Output Format Counters

```
Bytes Written=69
```

```
hduser@ubuntu:~$ hadoop fs -cat /input/output/part-r-00000
```

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```

```

are 1
brother 1
family 1
hl 1
how 5
is 4
job 1
sister 1
you 1
your 4

```

```
hduser@ubuntu:~$
```