Word Mean :

Command used : **hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordmean /user/sample/map.txt  /user/output**

[acadgild@localhost ~]$ start-all.sh  
This script is Deprecated. Instead use start-dfs.sh and start-yarn.sh  
18/06/09 16:06:07 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 /home/acadgild/install/hadoop/hadoop-2.6.5/logs/hadoop-acadgild-namenode-localhost.localdomain.out  
localhost: starting datanode, logging to /home/acadgild/install/hadoop/hadoop-2.6.5/logs/hadoop-acadgild-datanode-localhost.localdomain.out  
Starting secondary namenodes [0.0.0.0]  
[0.0.0.0](http://0.0.0.0/" \t "_blank): starting secondarynamenode, logging to /home/acadgild/install/hadoop/hadoop-2.6.5/logs/hadoop-acadgild-secondarynamenode-localhost.localdomain.out  
18/06/09 16:06:53 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 /home/acadgild/install/hadoop/hadoop-2.6.5/logs/yarn-acadgild-resourcemanager-localhost.localdomain.out  
localhost: starting nodemanager, logging to /home/acadgild/install/hadoop/hadoop-2.6.5/logs/yarn-acadgild-nodemanager-localhost.localdomain.out  
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost ~]$ jps  
3649 NodeManager  
3299 SecondaryNameNode  
3014 NameNode  
3115 DataNode  
3547 ResourceManager  
4030 Jps  
You have new mail in /var/spool/mail/acadgild

[acadgild@localhost ~]$ cd /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce

[acadgild@localhost mapreduce]$ hadoop jar hadoop-mapreduce-examples-2.6.5.jar  
An example program must be given as the first argument.  
Valid program names are:  
  aggregatewordcount: An Aggregate based map/reduce program that counts the words in the input files.  
  aggregatewordhist: An Aggregate based map/reduce program that computes the histogram of the words in the input files.  
  bbp: A map/reduce program that uses Bailey-Borwein-Plouffe to compute exact digits of Pi.  
  dbcount: An example job that count the pageview counts from a database.  
  distbbp: A map/reduce program that uses a BBP-type formula to compute exact bits of Pi.  
  grep: A map/reduce program that counts the matches of a regex in the input.  
  join: A job that effects a join over sorted, equally partitioned datasets  
  multifilewc: A job that counts words from several files.  
  pentomino: A map/reduce tile laying program to find solutions to pentomino problems.  
  pi: A map/reduce program that estimates Pi using a quasi-Monte Carlo method.  
  randomtextwriter: A map/reduce program that writes 10GB of random textual data per node.  
  randomwriter: A map/reduce program that writes 10GB of random data per node.  
  secondarysort: An example defining a secondary sort to the reduce.  
  sort: A map/reduce program that sorts the data written by the random writer.  
  sudoku: A sudoku solver.  
  teragen: Generate data for the terasort  
  terasort: Run the terasort  
  teravalidate: Checking results of terasort  
  wordcount: A map/reduce program that counts the words in the input files.  
  wordmean: A map/reduce program that counts the average length of the words in the input files.  
  wordmedian: A map/reduce program that counts the median length of the words in the input files.  
  wordstandarddeviation: A map/reduce program that counts the standard deviation of the length of the words in the input files.

[acadgild@localhost mapreduce]$ hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordmean /user/sample/map.txt  /user/output  
18/06/09 10:45:32 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
18/06/09 10:45:34 INFO client.RMProxy: Connecting to ResourceManager at localhost/[127.0.0.1:8032](http://127.0.0.1:8032/" \t "_blank)  
18/06/09 10:45:36 INFO input.FileInputFormat: Total input paths to process : 1  
18/06/09 10:45:37 INFO mapreduce.JobSubmitter: number of splits:1  
18/06/09 10:45:38 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_1528540637685\_0003  
18/06/09 10:45:39 INFO impl.YarnClientImpl: Submitted application application\_1528540637685\_0003  
18/06/09 10:45:39 INFO mapreduce.Job: The url to track the job: [http://localhost:8088/proxy/application\_1528540637685\_0003/](http://localhost:8088/proxy/application_1528540637685_0003/" \t "_blank)  
18/06/09 10:45:39 INFO mapreduce.Job: Running job: job\_1528540637685\_0003  
18/06/09 10:46:01 INFO mapreduce.Job: Job job\_1528540637685\_0003 running in uber mode : false  
18/06/09 10:46:01 INFO mapreduce.Job:  map 0% reduce 0%  
18/06/09 10:46:13 INFO mapreduce.Job:  map 100% reduce 0%  
18/06/09 10:46:30 INFO mapreduce.Job:  map 100% reduce 100%  
18/06/09 10:46:31 INFO mapreduce.Job: Job job\_1528540637685\_0003 completed successfully  
18/06/09 10:46:32 INFO mapreduce.Job: Counters: 49  
    File System Counters  
        FILE: Number of bytes read=39  
        FILE: Number of bytes written=215411  
        FILE: Number of read operations=0  
        FILE: Number of large read operations=0  
        FILE: Number of write operations=0  
        HDFS: Number of bytes read=282  
        HDFS: Number of bytes written=20  
        HDFS: Number of read operations=6  
        HDFS: Number of large read operations=0  
        HDFS: Number of write operations=2  
    Job Counters   
        Launched map tasks=1  
        Launched reduce tasks=1  
        Data-local map tasks=1  
        Total time spent by all maps in occupied slots (ms)=9156  
        Total time spent by all reduces in occupied slots (ms)=13053  
        Total time spent by all map tasks (ms)=9156  
        Total time spent by all reduce tasks (ms)=13053  
        Total vcore-milliseconds taken by all map tasks=9156  
        Total vcore-milliseconds taken by all reduce tasks=13053  
        Total megabyte-milliseconds taken by all map tasks=9375744  
        Total megabyte-milliseconds taken by all reduce tasks=13366272  
    Map-Reduce Framework  
        Map input records=1  
        Map output records=56  
        Map output bytes=812  
        Map output materialized bytes=39  
        Input split bytes=106  
        Combine input records=56  
        Combine output records=2  
        Reduce input groups=2  
        Reduce shuffle bytes=39  
        Reduce input records=2  
        Reduce output records=2  
        Spilled Records=4  
        Shuffled Maps =1  
        Failed Shuffles=0  
        Merged Map outputs=1  
        GC time elapsed (ms)=221  
        CPU time spent (ms)=2350  
        Physical memory (bytes) snapshot=292564992  
        Virtual memory (bytes) snapshot=4118224896  
        Total committed heap usage (bytes)=170004480  
    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=176  
    File Output Format Counters   
        Bytes Written=20  
**The mean is: 5.285714285714286**

[acadgild@localhost mapreduce]$ hdfs dfs -ls /user/output  
18/06/09 10:47:00 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
Found 2 items  
-rw-r--r--   1 acadgild supergroup          0 2018-06-09 10:46 /user/output/\_SUCCESS  
-rw-r--r--   1 acadgild supergroup         20 2018-06-09 10:46 /user/output/part-r-00000

[acadgild@localhost mapreduce]$ hdfs dfs -cat /user/output/part-r-00000  
18/06/09 10:48:31 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
count    28  
length    148

**2. WordMedian**

**Command used:** hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordmedian /user/sample/map.txt  /user/output1

[acadgild@localhost mapreduce]$ hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordmedian /user/sample/map.txt  /user/output1  
18/06/09 10:49:23 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
18/06/09 10:49:25 INFO client.RMProxy: Connecting to ResourceManager at localhost/[127.0.0.1:8032](http://127.0.0.1:8032/" \t "_blank)  
18/06/09 10:49:27 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.  
18/06/09 10:49:28 INFO input.FileInputFormat: Total input paths to process : 1  
18/06/09 10:49:28 INFO mapreduce.JobSubmitter: number of splits:1  
18/06/09 10:49:28 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_1528540637685\_0004  
18/06/09 10:49:29 INFO impl.YarnClientImpl: Submitted application application\_1528540637685\_0004  
18/06/09 10:49:29 INFO mapreduce.Job: The url to track the job: [http://localhost:8088/proxy/application\_1528540637685\_0004/](http://localhost:8088/proxy/application_1528540637685_0004/" \t "_blank)  
18/06/09 10:49:29 INFO mapreduce.Job: Running job: job\_1528540637685\_0004  
18/06/09 10:49:45 INFO mapreduce.Job: Job job\_1528540637685\_0004 running in uber mode : false  
18/06/09 10:49:45 INFO mapreduce.Job:  map 0% reduce 0%  
18/06/09 10:49:54 INFO mapreduce.Job:  map 100% reduce 0%  
18/06/09 10:50:08 INFO mapreduce.Job:  map 100% reduce 100%  
18/06/09 10:50:08 INFO mapreduce.Job: Job job\_1528540637685\_0004 completed successfully  
18/06/09 10:50:08 INFO mapreduce.Job: Counters: 49  
    File System Counters  
        FILE: Number of bytes read=86  
        FILE: Number of bytes written=215243  
        FILE: Number of read operations=0  
        FILE: Number of large read operations=0  
        FILE: Number of write operations=0  
        HDFS: Number of bytes read=282  
        HDFS: Number of bytes written=34  
        HDFS: Number of read operations=6  
        HDFS: Number of large read operations=0  
        HDFS: Number of write operations=2  
    Job Counters   
        Launched map tasks=1  
        Launched reduce tasks=1  
        Data-local map tasks=1  
        Total time spent by all maps in occupied slots (ms)=7508  
        Total time spent by all reduces in occupied slots (ms)=9368  
        Total time spent by all map tasks (ms)=7508  
        Total time spent by all reduce tasks (ms)=9368  
        Total vcore-milliseconds taken by all map tasks=7508  
        Total vcore-milliseconds taken by all reduce tasks=9368  
        Total megabyte-milliseconds taken by all map tasks=7688192  
        Total megabyte-milliseconds taken by all reduce tasks=9592832  
    Map-Reduce Framework  
        Map input records=1  
        Map output records=28  
        Map output bytes=224  
        Map output materialized bytes=86  
        Input split bytes=106  
        Combine input records=28  
        Combine output records=8  
        Reduce input groups=8  
        Reduce shuffle bytes=86  
        Reduce input records=8  
        Reduce output records=8  
        Spilled Records=16  
        Shuffled Maps =1  
        Failed Shuffles=0  
        Merged Map outputs=1  
        GC time elapsed (ms)=210  
        CPU time spent (ms)=2140  
        Physical memory (bytes) snapshot=297074688  
        Virtual memory (bytes) snapshot=4118224896  
        Total committed heap usage (bytes)=170004480  
    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=176  
    File Output Format Counters   
        Bytes Written=34  
**The median is: 4**

[acadgild@localhost mapreduce]$ hdfs dfs -ls /user/output1  
18/06/09 10:50:23 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
Found 2 items  
-rw-r--r--   1 acadgild supergroup          0 2018-06-09 10:50 /user/output1/\_SUCCESS  
-rw-r--r--   1 acadgild supergroup         34 2018-06-09 10:50 /user/output1/part-r-00000

[acadgild@localhost mapreduce]$ hdfs dfs -cat /user/output1/part-r-00000  
18/06/09 10:50:53 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
2    4  
3    3  
4    10  
6    1  
7    1  
8    5  
9    2  
10    2

**3.WordStandardDeviation**

**Command Used : hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordstandarddeviation /user/sample/map.txt  /user/output2**

[acadgild@localhost mapreduce]$ hadoop jar hadoop-mapreduce-examples-2.6.5.jar wordstandarddeviation /user/sample/map.txt  /user/output2  
18/06/09 10:52:52 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
18/06/09 10:52:53 INFO client.RMProxy: Connecting to ResourceManager at localhost/[127.0.0.1:8032](http://127.0.0.1:8032/" \t "_blank)  
18/06/09 10:52:55 INFO input.FileInputFormat: Total input paths to process : 1  
18/06/09 10:52:56 INFO mapreduce.JobSubmitter: number of splits:1  
18/06/09 10:52:56 INFO mapreduce.JobSubmitter: Submitting tokens for job: job\_1528540637685\_0005  
18/06/09 10:52:56 INFO impl.YarnClientImpl: Submitted application application\_1528540637685\_0005  
18/06/09 10:52:56 INFO mapreduce.Job: The url to track the job: [http://localhost:8088/proxy/application\_1528540637685\_0005/](http://localhost:8088/proxy/application_1528540637685_0005/" \t "_blank)  
18/06/09 10:52:56 INFO mapreduce.Job: Running job: job\_1528540637685\_0005  
18/06/09 10:53:08 INFO mapreduce.Job: Job job\_1528540637685\_0005 running in uber mode : false  
18/06/09 10:53:08 INFO mapreduce.Job:  map 0% reduce 0%  
18/06/09 10:53:16 INFO mapreduce.Job:  map 100% reduce 0%  
18/06/09 10:53:25 INFO mapreduce.Job:  map 100% reduce 100%  
18/06/09 10:53:25 INFO mapreduce.Job: Job job\_1528540637685\_0005 completed successfully  
18/06/09 10:53:25 INFO mapreduce.Job: Counters: 49  
    File System Counters  
        FILE: Number of bytes read=56  
        FILE: Number of bytes written=215607  
        FILE: Number of read operations=0  
        FILE: Number of large read operations=0  
        FILE: Number of write operations=0  
        HDFS: Number of bytes read=282  
        HDFS: Number of bytes written=31  
        HDFS: Number of read operations=6  
        HDFS: Number of large read operations=0  
        HDFS: Number of write operations=2  
    Job Counters   
        Launched map tasks=1  
        Launched reduce tasks=1  
        Data-local map tasks=1  
        Total time spent by all maps in occupied slots (ms)=5551  
        Total time spent by all reduces in occupied slots (ms)=6820  
        Total time spent by all map tasks (ms)=5551  
        Total time spent by all reduce tasks (ms)=6820  
        Total vcore-milliseconds taken by all map tasks=5551  
        Total vcore-milliseconds taken by all reduce tasks=6820  
        Total megabyte-milliseconds taken by all map tasks=5684224  
        Total megabyte-milliseconds taken by all reduce tasks=6983680  
    Map-Reduce Framework  
        Map input records=1  
        Map output records=84  
        Map output bytes=1232  
        Map output materialized bytes=56  
        Input split bytes=106  
        Combine input records=84  
        Combine output records=3  
        Reduce input groups=3  
        Reduce shuffle bytes=56  
        Reduce input records=3  
        Reduce output records=3  
        Spilled Records=6  
        Shuffled Maps =1  
        Failed Shuffles=0  
        Merged Map outputs=1  
        GC time elapsed (ms)=173  
        CPU time spent (ms)=1700  
        Physical memory (bytes) snapshot=295620608  
        Virtual memory (bytes) snapshot=4118228992  
        Total committed heap usage (bytes)=170004480  
    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=176  
    File Output Format Counters   
        Bytes Written=31  
The standard deviation is: 2.5892241371988374

[acadgild@localhost mapreduce]$ hdfs dfs -ls /user/output2  
18/06/09 10:54:07 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
Found 2 items  
-rw-r--r--   1 acadgild supergroup          0 2018-06-09 10:53 /user/output2/\_SUCCESS  
-rw-r--r--   1 acadgild supergroup         31 2018-06-09 10:53 /user/output2/part-r-00000

[acadgild@localhost mapreduce]$ hdfs dfs -cat /user/output2/part-r-00000

18/06/09 10:54:21 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable  
count    28  
length    148  
square    970  
[acadgild@localhost mapreduce]$