

## TASK-1:-

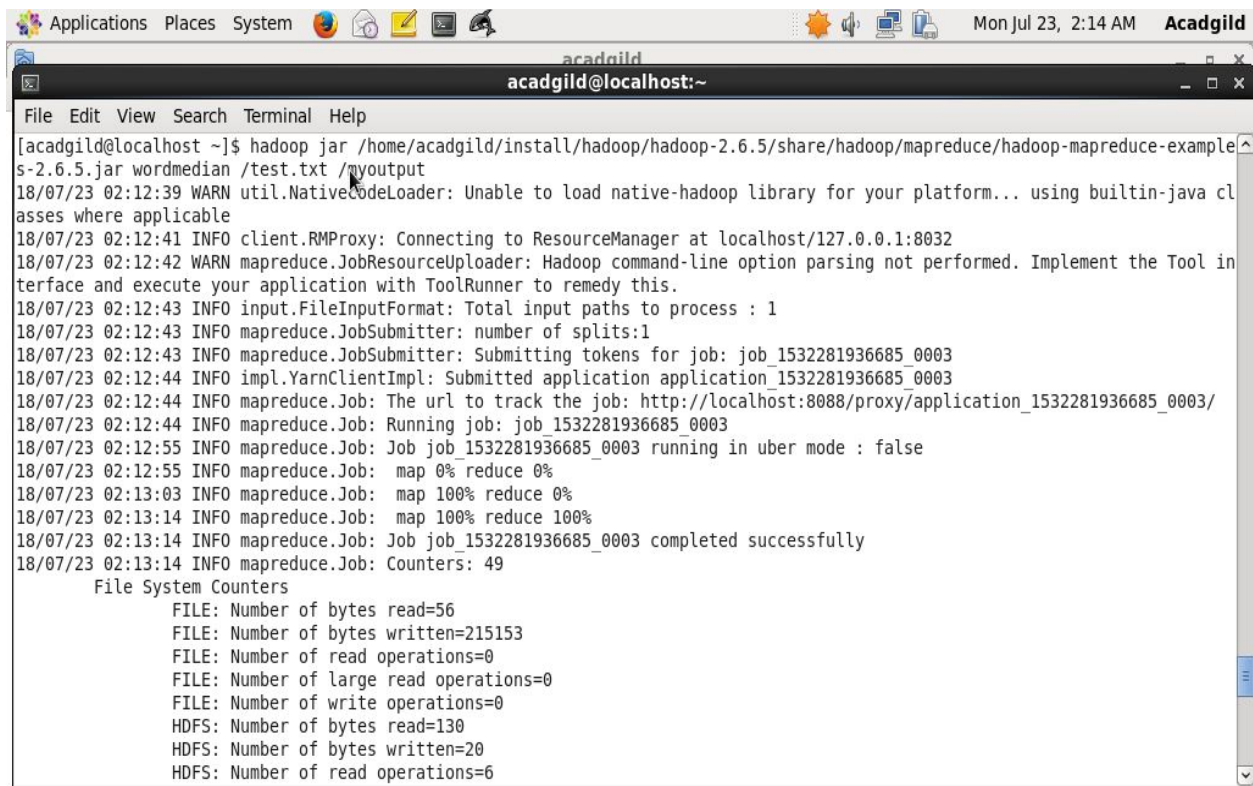
**EXECUTE WORDMEDIAN WITH GIVEN JAR FILE IN VM.**

**INPUT-FILE :-** TEST.txt

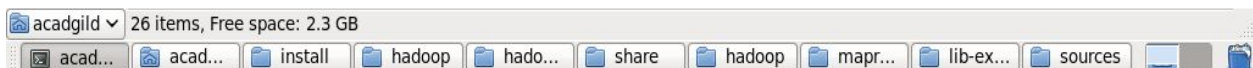
**OUTPUT:-** MYOUTPUT IS OUTPUT DIRECTORY WHERE OUTPUT IS STORED.

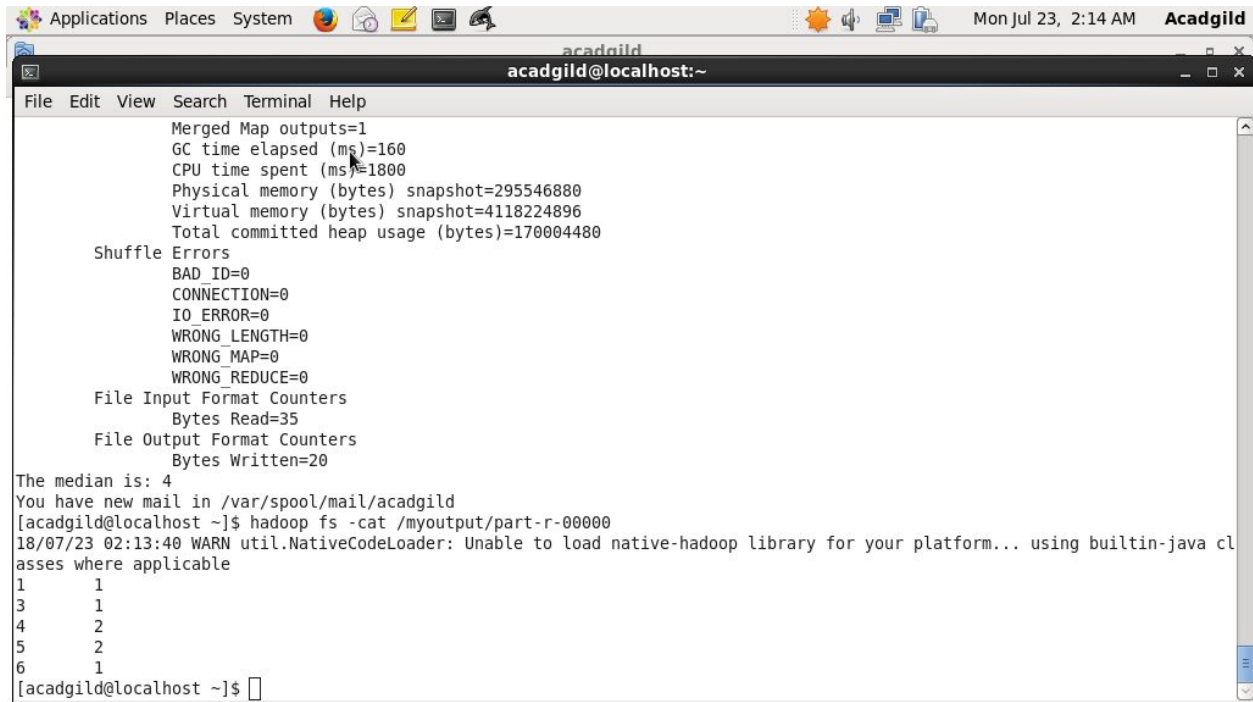
**COMMAND:-** `hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.9.0.jar/ Wordmedian /test.txt /myoutput.`

## Output diagram:-



```
acadgild
acadgild@localhost:~
File Edit View Search Terminal Help
[acadgild@localhost ~]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordmedian /test.txt /myoutput
18/07/23 02:12:39 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
18/07/23 02:12:41 INFO client.RMProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
18/07/23 02:12:42 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
18/07/23 02:12:43 INFO input.FileInputFormat: Total input paths to process : 1
18/07/23 02:12:43 INFO mapreduce.JobSubmitter: number of splits:1
18/07/23 02:12:43 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1532281936685_0003
18/07/23 02:12:44 INFO impl.YarnClientImpl: Submitted application application_1532281936685_0003
18/07/23 02:12:44 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1532281936685_0003/
18/07/23 02:12:44 INFO mapreduce.Job: Running job: job_1532281936685_0003
18/07/23 02:12:55 INFO mapreduce.Job: Job job_1532281936685_0003 running in uber mode : false
18/07/23 02:12:55 INFO mapreduce.Job:  map 0% reduce 0%
18/07/23 02:13:03 INFO mapreduce.Job:  map 100% reduce 0%
18/07/23 02:13:14 INFO mapreduce.Job:  map 100% reduce 100%
18/07/23 02:13:14 INFO mapreduce.Job: Job job_1532281936685_0003 completed successfully
18/07/23 02:13:14 INFO mapreduce.Job: Counters: 49
    File System Counters
      FILE: Number of bytes read=56
      FILE: Number of bytes written=215153
      FILE: Number of read operations=0
      FILE: Number of large read operations=0
      FILE: Number of write operations=0
      HDFS: Number of bytes read=130
      HDFS: Number of bytes written=20
      HDFS: Number of read operations=6
```





The image shows a terminal window titled 'acadmild' with the prompt 'acadmild@localhost:~'. The terminal output displays Hadoop job statistics: 'Merged Map outputs=1', 'GC time elapsed (ms)=160', 'CPU time spent (ms)=1800', 'Physical memory (bytes) snapshot=295546880', 'Virtual memory (bytes) snapshot=4118224896', and 'Total committed heap usage (bytes)=170004480'. It then lists 'Shuffle Errors' with values for BAD\_ID, CONNECTION, IO\_ERROR, WRONG\_LENGTH, WRONG\_MAP, and WRONG\_REDUCE, all set to 0. 'File Input Format Counters' shows 'Bytes Read=35', and 'File Output Format Counters' shows 'Bytes Written=20'. The median is 4. A mail notification follows: 'You have new mail in /var/spool/mail/acadmild'. The user runs 'hadoop fs -cat /myoutput/part-r-00000', resulting in a warning: '18/07/23 02:13:40 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable'. The output shows a list of numbers: 1, 3, 4, 5, 6, 1. The terminal ends with the prompt '[acadmild@localhost ~]\$ '.









```
acadmild
acadmild@localhost:~
File Edit View Search Terminal Help
Merged Map outputs=1
GC time elapsed (ms)=160
CPU time spent (ms)=1800
Physical memory (bytes) snapshot=295546880
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=35
File Output Format Counters
Bytes Written=20
The median is: 4
You have new mail in /var/spool/mail/acadmild
[acadmild@localhost ~]$ hadoop fs -cat /myoutput/part-r-00000
18/07/23 02:13:40 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
1      1
3      1
4      2
5      2
6      1
[acadmild@localhost ~]$
```



**TASK 2:-**  
**EXECUTE WORDMEAN WITH GIVEN JAR FILE IN VM.**

**COMMAND:-** `hadoop jar /home/acadmild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.9.0.jar/Wordmean /text.txt /myoutput`

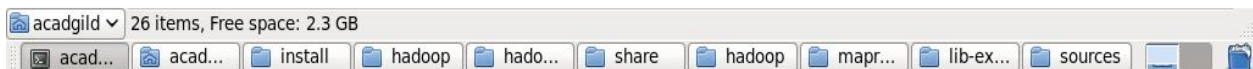
**OUTPUT:-**

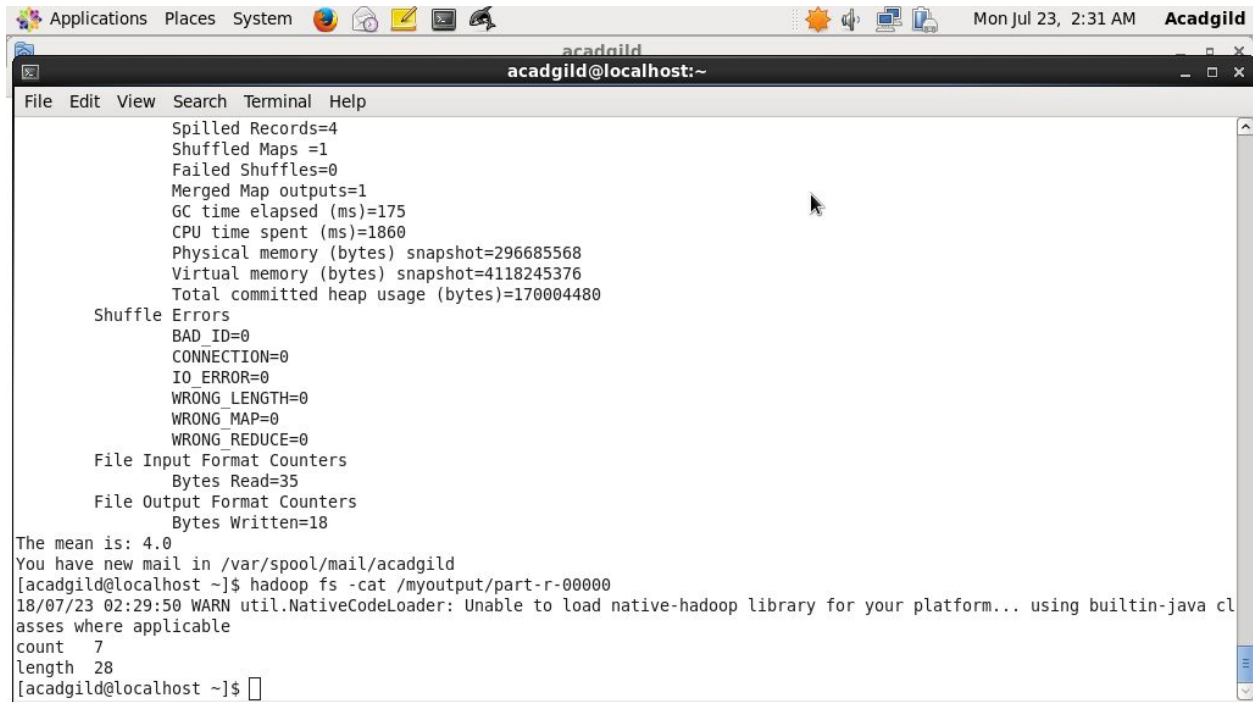
Applications Places System         Mon Jul 23, 2:30 AM Acadgild

acadgild  
acadgild@localhost:~

File Edit View Search Terminal Help

```
[acadgild@localhost ~]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordmean /test.txt /myoutput
18/07/23 02:29:06 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
18/07/23 02:29:08 INFO client.RMPProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
18/07/23 02:29:10 INFO input.FileInputFormat: Total input paths to process : 1
18/07/23 02:29:10 INFO mapreduce.JobSubmitter: number of splits:1
18/07/23 02:29:10 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1532281936685_0004
18/07/23 02:29:10 INFO impl.YarnClientImpl: Submitted application application_1532281936685_0004
18/07/23 02:29:10 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1532281936685_0004/
18/07/23 02:29:10 INFO mapreduce.Job: Running job: job_1532281936685_0004
18/07/23 02:29:22 INFO mapreduce.Job: Job job_1532281936685_0004 running in uber mode : false
18/07/23 02:29:22 INFO mapreduce.Job:  map 0% reduce 0%
18/07/23 02:29:30 INFO mapreduce.Job:  map 100% reduce 0%
18/07/23 02:29:39 INFO mapreduce.Job:  map 100% reduce 100%
18/07/23 02:29:40 INFO mapreduce.Job: Job job_1532281936685_0004 completed successfully
18/07/23 02:29:41 INFO mapreduce.Job: Counters: 49
    File System Counters
      FILE: Number of bytes read=39
      FILE: Number of bytes written=215383
      FILE: Number of read operations=0
      FILE: Number of large read operations=0
      FILE: Number of write operations=0
      HDFS: Number of bytes read=130
      HDFS: Number of bytes written=18
      HDFS: Number of read operations=6
```





The image shows a terminal window titled 'acadmild' with the prompt 'acadmild@localhost:~'. The terminal displays the output of a Hadoop job, including statistics like 'Spilled Records=4', 'Shuffled Maps =1', and 'Failed Shuffles=0'. It also shows 'Shuffle Errors' and 'File Input Format Counters'. Below the job output, a message indicates new mail in the user's mailbox. The user then runs the command 'hadoop fs -cat /myoutput/part-r-00000', which outputs the number '7'. A warning message from 'util.NativeCodeLoader' is also visible. Below the terminal, a file explorer window shows the user's home directory with various folders like 'install', 'hadoop', 'share', 'mapr...', 'lib-ex...', and 'sources'.






```
acadmild
acadmild@localhost:~
File Edit View Search Terminal Help
Spilled Records=4
Shuffled Maps =1
Failed Shuffles=0
Merged Map outputs=1
GC time elapsed (ms)=175
CPU time spent (ms)=1860
Physical memory (bytes) snapshot=296685568
Virtual memory (bytes) snapshot=4118245376
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=35
File Output Format Counters
Bytes Written=18
The mean is: 4.0
You have new mail in /var/spool/mail/acadmild
[acadmild@localhost ~]$ hadoop fs -cat /myoutput/part-r-00000
18/07/23 02:29:50 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
count 7
length 28
[acadmild@localhost ~]$
```

### TASK-3

***EXECUTE WORDSTANDARDDEVIATION WITH GIVEN JAR FILE IN VM.***

**COMMAND:-** `hadoop jar /home/acadmild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.9.0.jar/Wordstandarddeviation /text.txt /myoutput`

**OUTPUT:-**






Applications Places System      Mon Jul 23, 2:33 AM **Acadgild**

acadgild  
acadgild@localhost:~

File Edit View Search Terminal Help

```
[acadgild@localhost ~]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordstandarddeviation /test.txt /myoutput
18/07/23 02:32:18 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
18/07/23 02:32:19 INFO client.RMPProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
18/07/23 02:32:21 INFO input.FileInputFormat: Total input paths to process : 1
18/07/23 02:32:21 INFO mapreduce.JobSubmitter: number of splits:1
18/07/23 02:32:21 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1532281936685_0005
18/07/23 02:32:22 INFO impl.YarnClientImpl: Submitted application application_1532281936685_0005
18/07/23 02:32:22 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1532281936685_0005/
18/07/23 02:32:22 INFO mapreduce.Job: Running job: job_1532281936685_0005
18/07/23 02:32:33 INFO mapreduce.Job: Job job_1532281936685_0005 running in uber mode : false
18/07/23 02:32:33 INFO mapreduce.Job: map 0% reduce 0%
18/07/23 02:32:42 INFO mapreduce.Job: map 100% reduce 0%
18/07/23 02:32:51 INFO mapreduce.Job: map 100% reduce 100%
18/07/23 02:32:52 INFO mapreduce.Job: Job job_1532281936685_0005 completed successfully
18/07/23 02:32:52 INFO mapreduce.Job: Counters: 49
    File System Counters
      FILE: Number of bytes read=56
      FILE: Number of bytes written=215577
      FILE: Number of read operations=0
      FILE: Number of large read operations=0
      FILE: Number of write operations=0
      HDFS: Number of bytes read=130
      HDFS: Number of bytes written=29
      HDFS: Number of read operations=6
      HDFS: Number of large read operations=0
      HDFS: Number of write operations=2
```



Applications Places System      Mon Jul 23, 2:34 AM **Acadgild**

acadgild  
acadgild@localhost:~

File Edit View Search Terminal Help

```
Shuffled Maps =1
Failed Shuffles=0
Merged Map outputs=1
GC time elapsed (ms)=225
CPU time spent (ms)=1870
Physical memory (bytes) snapshot=297881600
Virtual memory (bytes) snapshot=4118265856
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=35
File Output Format Counters
  Bytes Written=29

The standard deviation is: 1.5118578920369086
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost ~]$ hadoop fs -cat /myoutput/part-r-00000
18/07/23 02:33:03 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
count      7
length    28
square   128
[acadgild@localhost ~]$
```

