

# Yarn

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Course: Big Data Hadoop & Spark Training

Assignment. – Task 1:

Execute WordMedian , WordMean , WordStandardDeviation programs using  
hadoop-mapreduce-examples-2.9.0.jar file present in your AcadGild VM.

Refer path below.

/home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce

Solution:

The Screenshots are as follows :

```
[acadgild@localhost ~]$ hadoop fs -cat /user/acadgild/hadoop/word-count.txt
18/11/14 01:03:44 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
My Name is Shashank Dixit. I am learning Big Data Hadoop and Spark. My mentor is Magesh.
```

**1) Used the suggested jar to calculate wordmedian that gave the output as 4 .**

```
[acadgild@localhost sbin]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordmedian /user/acadgild/hadoop/word-count.txt /output
18/11/14 01:11:22 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
18/11/14 01:11:27 INFO client.RMProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
18/11/14 01:11:32 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool in terface and execute your application with ToolRunner to remedy this.
18/11/14 01:11:36 INFO input.FileInputFormat: Total input paths to process : 1
18/11/14 01:11:36 INFO mapreduce.JobSubmitter: number of splits:1
18/11/14 01:11:38 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1542135100691_0001
18/11/14 01:11:41 INFO impl.YarnClientImpl: Submitted application application_1542135100691_0001
18/11/14 01:11:42 INFO mapreduce.Job: The url to track the job: http://localhost:8088/proxy/application_1542135100691_0001/
18/11/14 01:11:42 INFO mapreduce.Job: Running job: job_1542135100691_0001
^[[B18/11/14 01:13:00 INFO mapreduce.Job: Job job_1542135100691_0001 running in uber mode : false
18/11/14 01:13:00 INFO mapreduce.Job: map 0% reduce 0%
18/11/14 01:13:41 INFO mapreduce.Job: map 100% reduce 0%
18/11/14 01:14:28 INFO mapreduce.Job: map 100% reduce 100%
18/11/14 01:14:34 INFO mapreduce.Job: Job job_1542135100691_0001 completed successfully
18/11/14 01:14:39 INFO mapreduce.Job: Counters: 49
  File System Counters
    FILE: Number of bytes read=76
    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=211
    HDFS: Number of bytes written=28
    HDFS: Number of read operations=6
    HDFS: Number of large read operations=0
```

```

        Total committed heap usage (bytes)=170004400
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=28
18/11/14 01:14:40 INFO mapred.ClientServiceDelegate: Application state is completed. FinalApplicationStatus
cting to job history server
The median is: 4
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$ hadoop

```

Also checked the generated output file which gave below output:

```

[acadgild@localhost sbin]$ hadoop fs -cat /output/part-r-00000
18/11/14 01:38:48 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java cl
asses where applicable
1      1
2      5
3      2
4      2
6      4
7      1
8      2
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$

```

## **2) Executed the same jar to calculate the wordmean:**

```
[acadgild@localhost sbin]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordmean /user/acadgild/hadoop/word-count.txt /output_wordmean
```

Output Shown on screen:

```
18/11/14 01:45:12 INFO mapred.ClientServiceDelegate: Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
The mean is: 4.235294117647059
You have new mail in /var/spool/mail/acadgild
```

## **Output from file**

```
[acadgild@localhost sbin]$ hadoop fs -cat /output_wordmean/part-r-00000
18/11/14 01:53:34 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
count 17
length 72
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$ █
```

## **3) Executed the same jar to calculate the wordstandarddeviaton:**



```
[acadgild@localhost sbin]$ hadoop jar /home/acadgild/install/hadoop/hadoop-2.6.5/share/hadoop/mapreduce/hadoop-mapreduce-examples-2.6.5.jar wordstandarddeviation /user/acadgild/hadoop/word-count.txt /output_sd
```

#### Output Shown on screen:

```
Bytes Read=0
File Output Format Counters
  Bytes Written=30
18/11/14 02:00:23 INFO mapred.ClientServiceDelegate: Application state
cting to job history server
The standard deviation is: 2.2629863601966287
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$
```

#### Output from file:

```
18/11/14 02:00:23 INFO mapred.ClientServiceDelegate: Application stat
cting to job history server
The standard deviation is: 2.2629863601966287
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$ hadoop fs -cat /output_sd/part-r-00000
18/11/14 02:01:48 WARN util.NativeCodeLoader: Unable to load native-f
asses where applicable
count    17
length   72
square   392
You have new mail in /var/spool/mail/acadgild
[acadgild@localhost sbin]$
```