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ITMD 521
Week 05

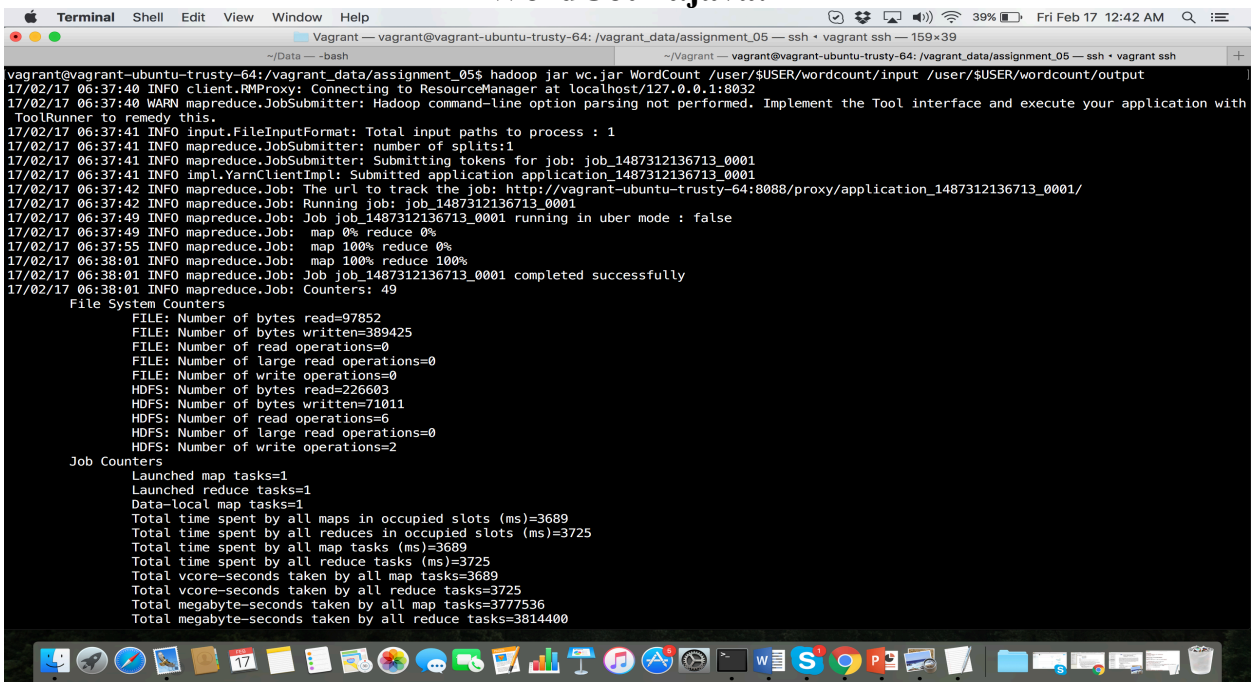
Below are the screen shots explaining all the steps of week-05 assignment. The screen shots show the results after executing the following:

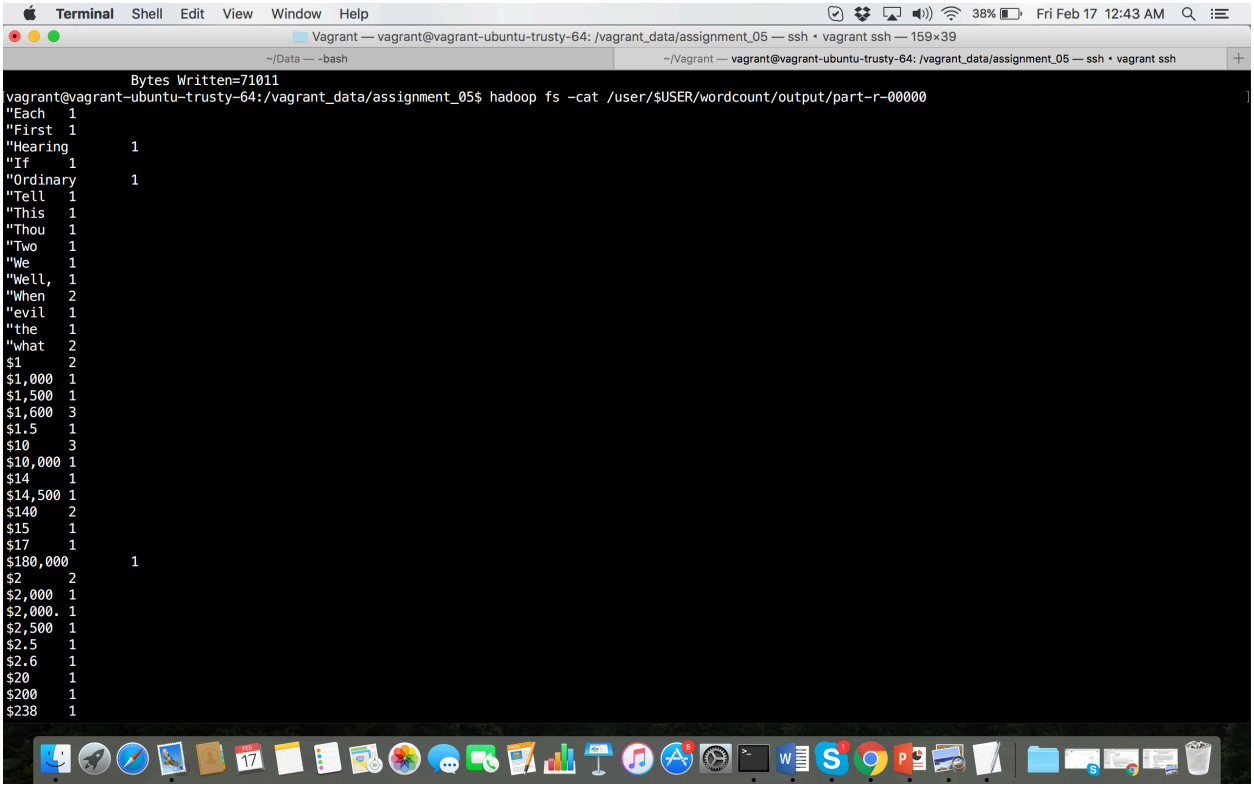
1. WordCount.java
2. Modified WordCount.java to show the list of words which appear more than 4 times
3. WordCount2.java
4. Modified WordCount2.java with case sensitive= true and all the punctuations and preposition removed by giving the skip command from the pattern.txt file.
5. The top ten words for all the above 4 steps.

Note: All the numeric and non-numeric symbols were included in the pattern.txt.

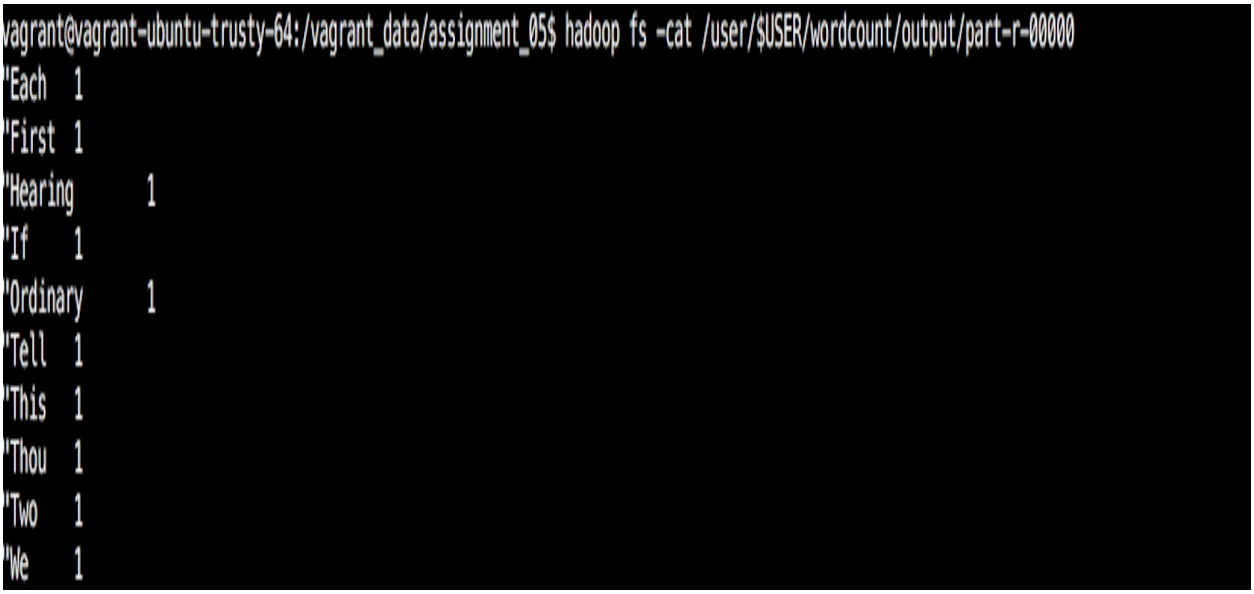
Screen shots:

WordCount.java:

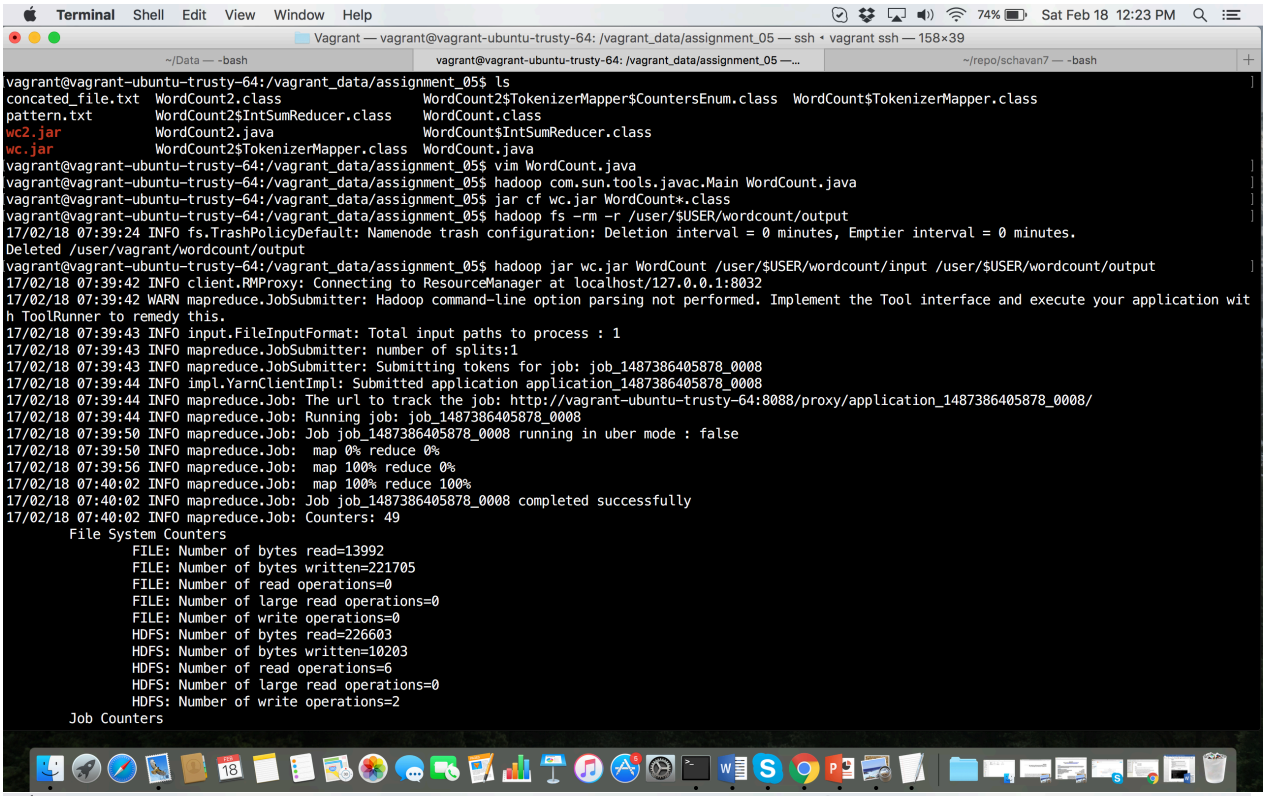



Terminal Shell Edit View Window Help
Fri Feb 17 12:43 AM
Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh — 159×39
~/Data — -bash
~/Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh
Bytes Written=71011
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
"Each 1
"First 1
"Hearing 1
"If 1
"Ordinary 1
"Tell 1
"This 1
"Thou 1
"Two 1
"We 1
"Well, 1
"When 2
"evil 1
"the 1
"what 2
$1 2
$1,000 1
$1,500 1
$1,600 3
$1.5 1
$10 3
$10,000 1
$14 1
$14,500 1
$140 2
$15 1
$17 1
$180,000 1
$2 2
$2,000 1
$2,000. 1
$2,500 1
$2.5 1
$2.6 1
$20 1
$200 1
$238 1

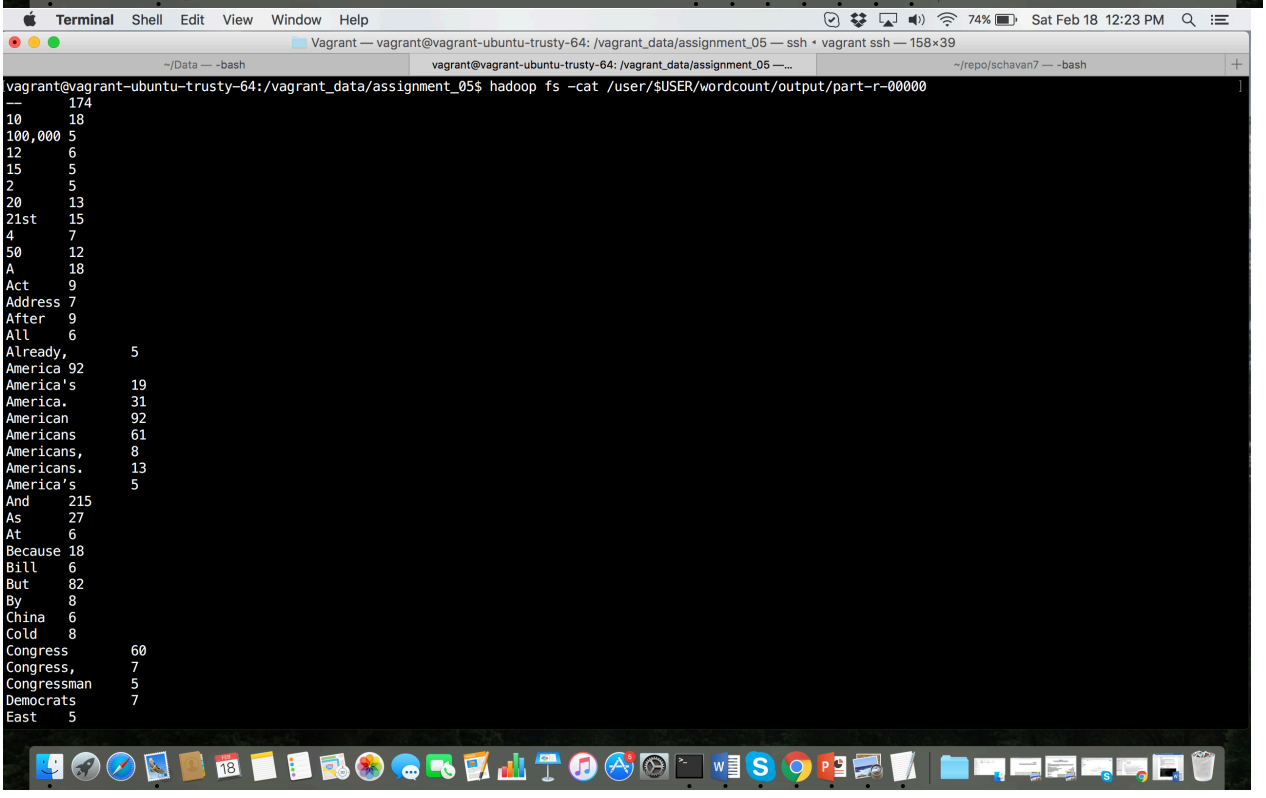
Top 10 words:


vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
"Each 1
"First 1
"Hearing 1
"If 1
"Ordinary 1
"Tell 1
"This 1
"Thou 1
"Two 1
"We 1

Modified WordCount.java to show the list of words which appear more than 4 times:



```
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ ls
concated_file.txt  WordCount2.class                 WordCount2$TokenizerMapper$CountersEnum.class  WordCount$TokenizerMapper.class
pattern.txt        WordCount2$IntSumReducer.class   WordCount.class
wc2.jar            WordCount2.java                  WordCount$IntSumReducer.class
wc.jar             WordCount2$TokenizerMapper.class  WordCount.java
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ vim WordCount.java
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop com.sun.tools.javac.Main WordCount.java
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ jar cf wc.jar WordCount*.class
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -rm -r /user/$USER/wordcount/output
17/02/18 07:39:24 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 minutes.
Deleted /user/vagrant/wordcount/output
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop jar wc.jar WordCount /user/$USER/wordcount/input /user/$USER/wordcount/output
17/02/18 07:39:42 INFO client.RMProxy: Connecting to ResourceManager at localhost/127.0.0.1:8032
17/02/18 07:39:42 WARN mapreduce.JobSubmitter: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application wit
h ToolRunner to remedy this.
17/02/18 07:39:43 INFO input.FileInputFormat: Total input paths to process : 1
17/02/18 07:39:43 INFO mapreduce.JobSubmitter: number of splits:1
17/02/18 07:39:43 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1487386405878_0008
17/02/18 07:39:44 INFO impl.YarnClientImpl: Submitted application application_1487386405878_0008
17/02/18 07:39:44 INFO mapreduce.Job: The url to track the job: http://vagrant-ubuntu-trusty-64:8088/proxy/application_1487386405878_0008/
17/02/18 07:39:44 INFO mapreduce.Job: Running job: job_1487386405878_0008
17/02/18 07:39:50 INFO mapreduce.Job: Job job_1487386405878_0008 running in uber mode : false
17/02/18 07:39:50 INFO mapreduce.Job:  map 0% reduce 0%
17/02/18 07:39:56 INFO mapreduce.Job:  map 100% reduce 0%
17/02/18 07:40:02 INFO mapreduce.Job:  map 100% reduce 100%
17/02/18 07:40:02 INFO mapreduce.Job: Job job_1487386405878_0008 completed successfully
17/02/18 07:40:02 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=13992
                FILE: Number of bytes written=221705
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=226603
                HDFS: Number of bytes written=10203
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
```

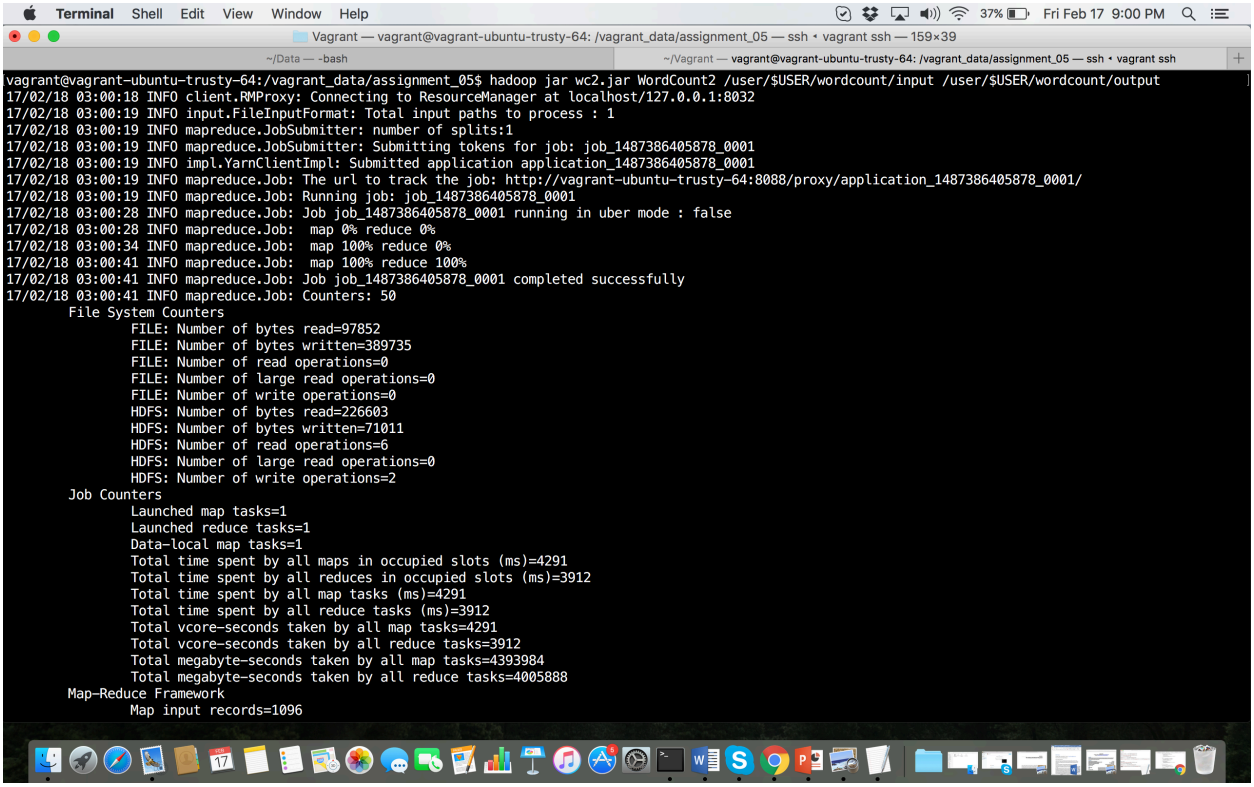


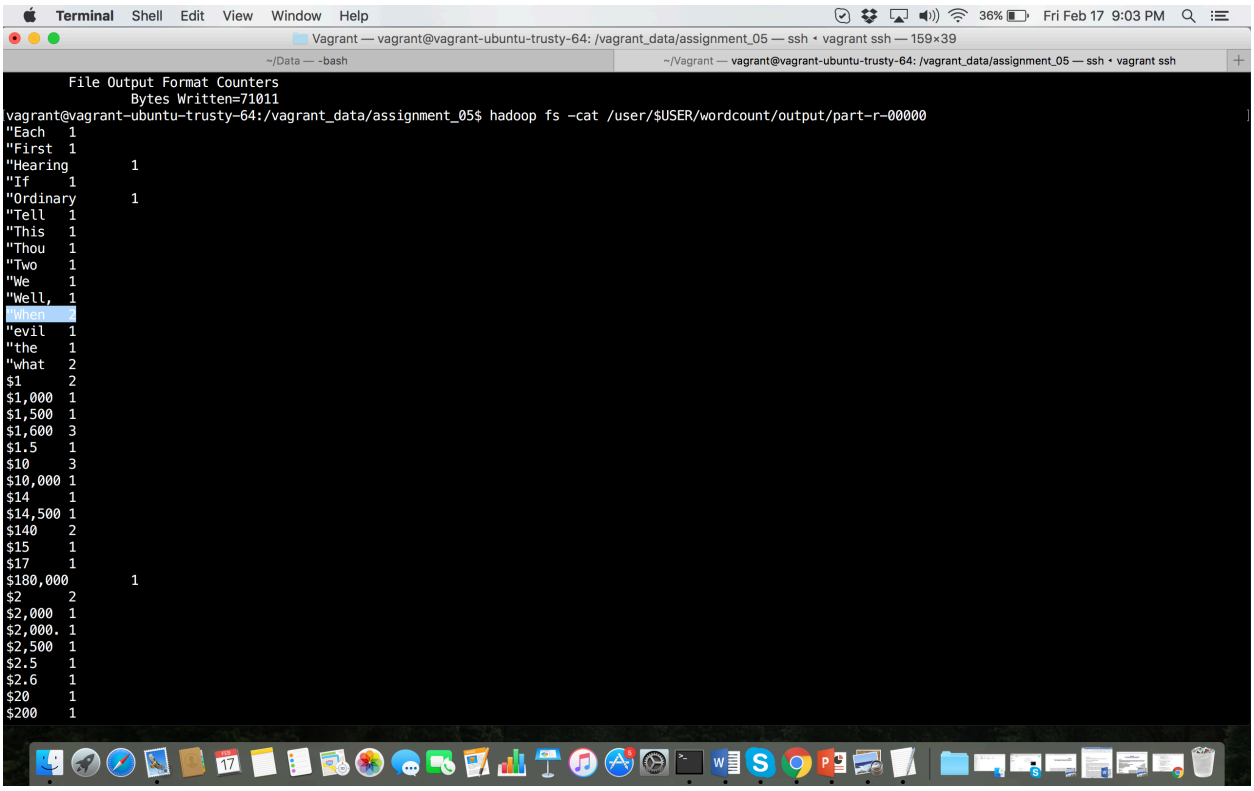
```
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
--      174
10      18
100,000 5
12      6
15      5
2       5
20      13
21st    15
4       7
50      12
A       18
Act     9
Address 7
After   9
All     6
Already,        5
America 92
America's       19
America.        31
American        92
Americans       61
Americans,      8
Americans.      13
America's       5
And     215
As      27
At      6
Because 18
Bill    6
But     82
By      8
China   6
Cold    8
Congress        60
Congress,       7
Congressman     5
Democrats       7
East    5
```

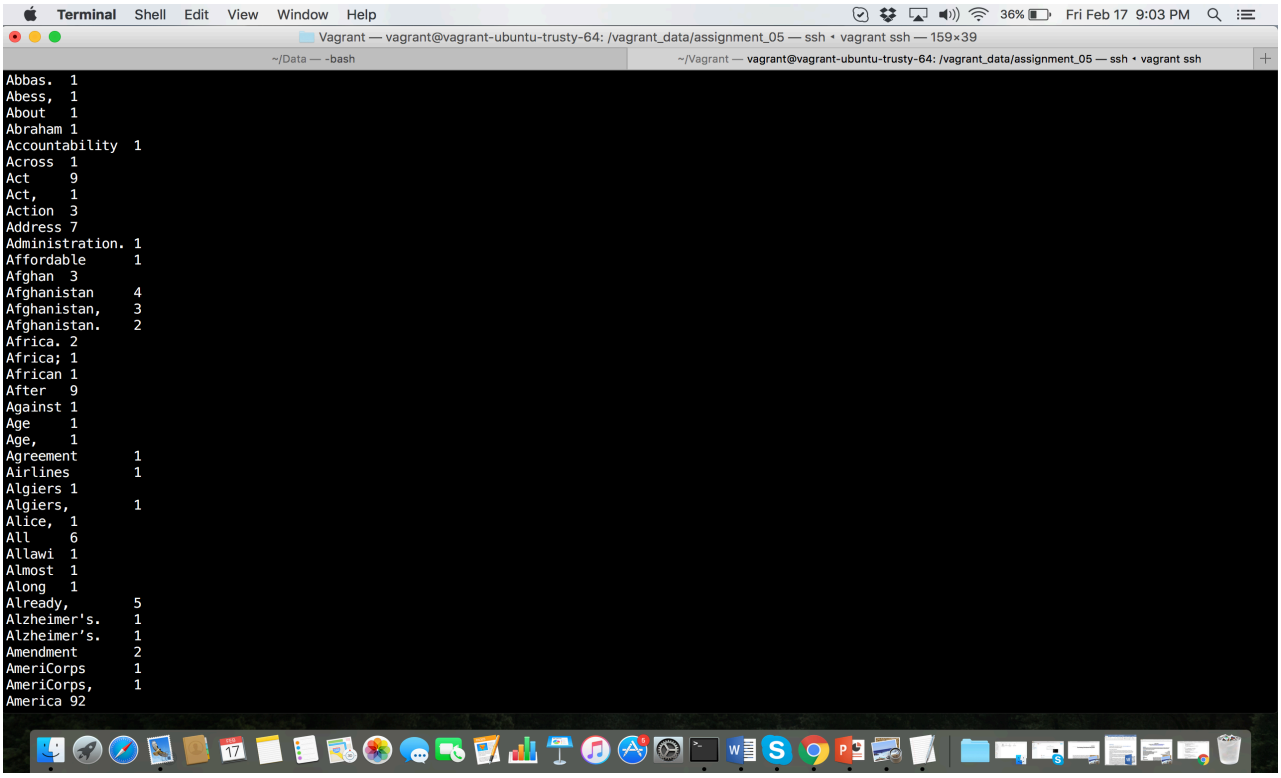
Top 10 words:

```
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
--      174
1       4
10      18
100,000 5
12      6
15      5
2       5
20      13
21st    15
4       7
```

WordCount2.java



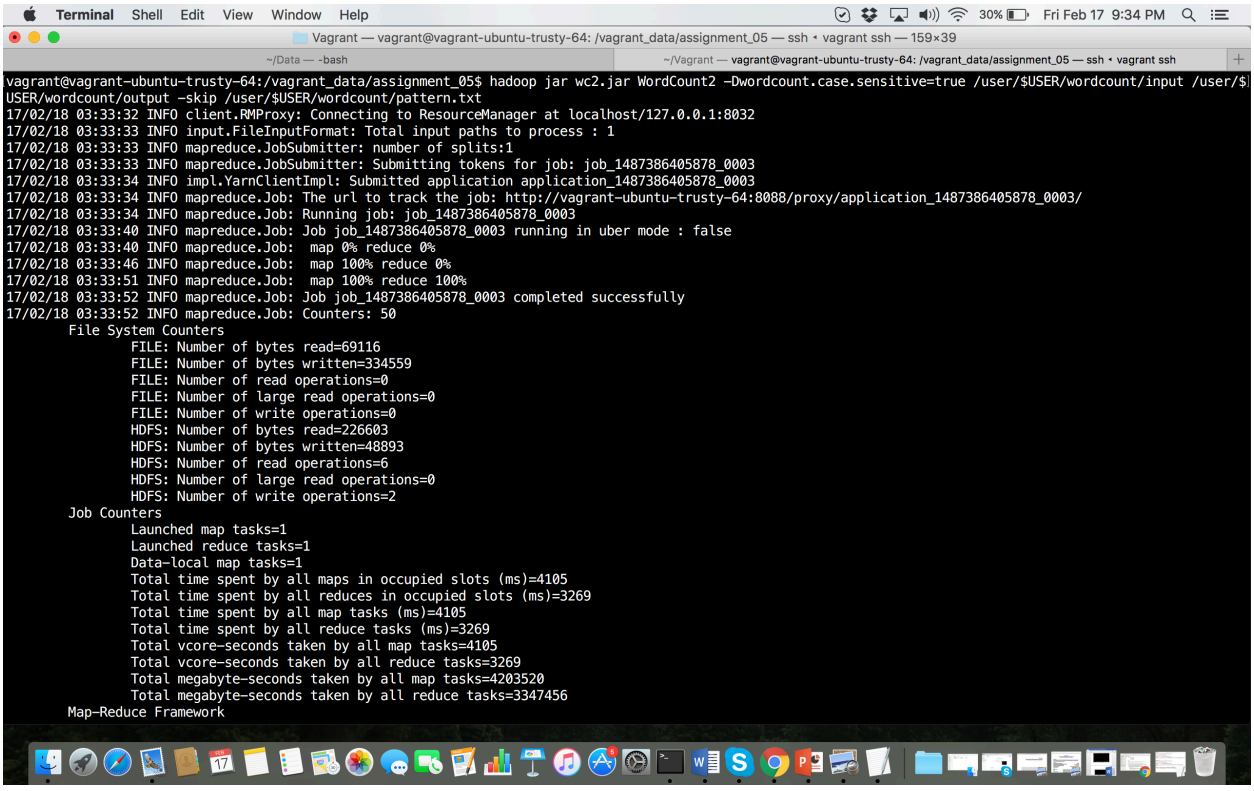

Terminal Shell Edit View Window Help
Fri Feb 17 9:03 PM
Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh — 159×39
~/Data — -bash
~/Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh
File Output Format Counters
Bytes Written=71011
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
"Each 1
"First 1
"Hearing 1
"If 1
"Ordinary 1
"Tell 1
"This 1
"Thou 1
"Two 1
"We 1
"Well, 1
"When 2
"evil 1
"the 1
"what 2
$1 2
$1,000 1
$1,500 1
$1,600 3
$1.5 1
$10 3
$10,000 1
$14 1
$14,500 1
$140 2
$15 1
$17 1
$180,000 1
$2 2
$2,000 1
$2,000. 1
$2,500 1
$2.5 1
$2.6 1
$20 1
$200 1

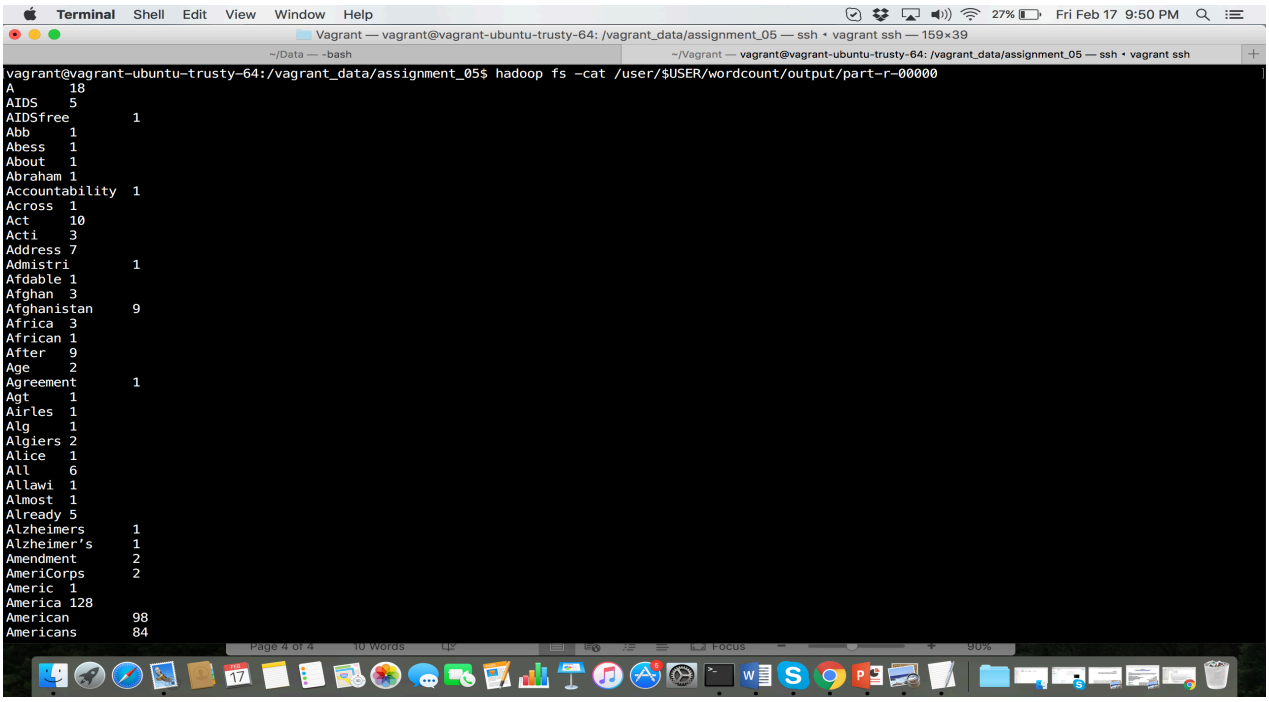

Terminal Shell Edit View Window Help
Fri Feb 17 9:03 PM
Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh — 159×39
~/Data — -bash
~/Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh
Abbas. 1
Abess, 1
About 1
Abraham 1
Accountability 1
Across 1
Act 9
Act, 1
Action 3
Address 7
Administration. 1
Affordable 1
Afghan 3
Afghanistan 4
Afghanistan, 3
Afghanistan. 2
Africa. 2
Africa; 1
African 1
After 9
Against 1
Age 1
Age, 1
Agreement 1
Airlines 1
Algiers 1
Algiers, 1
Alice, 1
All 6
Allawi 1
Almost 1
Along 1
Already, 5
Alzheimer's. 1
Alzheimer’s. 1
Amendment 2
AmeriCorps 1
AmeriCorps, 1
America 92

Top 10 words:

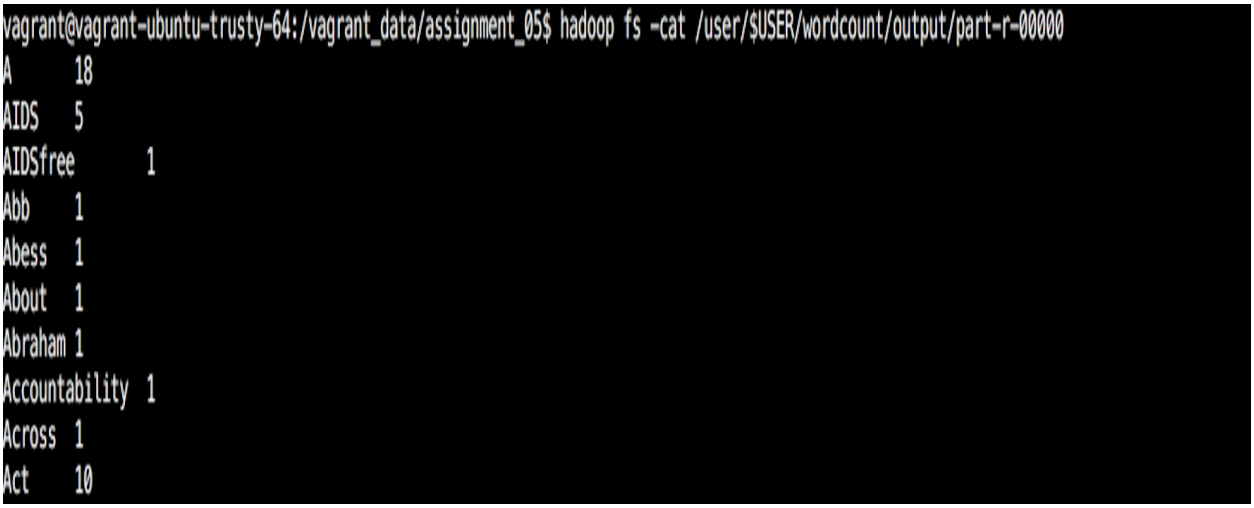
```
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
"Each   1
"First  1
"Hearing        1
"If     1
"Ordinary       1
"Tell   1
"This   1
"Thou   1
"Two    1
"We     1
```

Modified WordCount2.java with the case sensitive= true and all the and punctuations and preposition removed by giving the skip command for the pattern.txt file.




Terminal Shell Edit View Window Help
Fri Feb 17 9:50 PM
Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh — 159×39
~/Data — -bash
~/Vagrant — vagrant@vagrant-ubuntu-trusty-64: /vagrant_data/assignment_05 — ssh • vagrant ssh
vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
A 18
AIDS 5
AIDSfree 1
Abb 1
Abess 1
About 1
Abraham 1
Accountability 1
Across 1
Act 10
Acti 3
Address 7
Admistri 1
Afdable 1
Afghan 3
Afghanistan 9
Africa 3
African 1
After 9
Age 2
Agreement 1
Agt 1
Airles 1
Alg 1
Algiers 2
Alice 1
All 6
Allawi 1
Almost 1
Already 5
Alzheimers 1
Alzheimer's 1
Amendment 2
AmeriCorps 2
Americ 1
America 128
American 98
Americans 84

Top 10 words:


vagrant@vagrant-ubuntu-trusty-64:/vagrant_data/assignment_05$ hadoop fs -cat /user/$USER/wordcount/output/part-r-00000
A 18
AIDS 5
AIDSfree 1
Abb 1
Abess 1
About 1
Abraham 1
Accountability 1
Across 1
Act 10