

# Management of Big Data and Tools – DS8003 – Fall 2016

## Assignment 04

NAJLIS, BERNARDO - Student Number #500744793

### Datasets:

1. **full\_text\_clean.txt:** (userid, lat, lon, tweet, modified\_lat, modified\_lon) [[D2L -> Assignment 3 – Pig -> full\_text\_clean.txt]
2. **cities\_clean.txt:** (city\_name, lat, lon, modified\_lat, modified\_lon) [D2L -> Assignment 3 – Pig -> cities\_clean.txt]
3. Copy **full\_text\_clean.txt** and **cities\_clean.txt** to the virtual machine (**Filezilla**)
4. Copy **full\_text\_clean.txt** and **cities\_clean.txt** from virtual machine into HDFS (**hadoop fs -put**)

### Submission:

1. Submit the pig commands (copy it into a file and submit)
2. Submit using Assessment -> Dropbox -> Pig Assignment 3

### Assignment (Total of 10)

- 1) Get a 10% sample from full\_text\_clean.txt and store results in full\_text\_small.txt **(2)**
- 2) Find the top 3 words used in tweets from file full\_text\_clean.txt **(2)**
- 3) Calculate total number of records in cities\_clean.txt file **(2)**
- 4) Find closest city for each tweet **(4)**

### Hint:

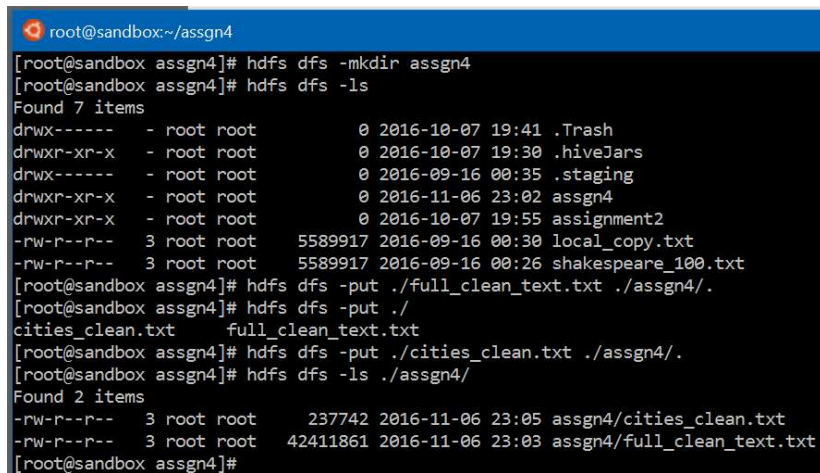
- The lat-lon in full\_text\_clean.txt file doesn't match directly with the lat-lon of the cities in cities\_clean.txt file. For that purpose, I have pre-processed both files to include a modified lat and lon column (last two columns of both files). So for each of geo-tagged tweets, you will map to multiple nearby cities using the last two columns of both files. After that, for each geo-tagged tweet, you then calculate the distance using the actual lat-lon values and pick the closest city.
- Calculating Euclidean Distance (pig example)
  - $\text{SQRT}((\text{lat}_1 - \text{lat}_2)^2 + (\text{lon}_1 - \text{lon}_2)^2)$
  - Lat\_1/Lon\_1 refer to lat/lon in full\_text\_clean.txt
  - Lat\_2/Lon\_2 refer to lat/lon in cities\_clean.txt

## Resolution

### 0. Environment setup

- a. Files copied into HDFS and increase Java VM heap size for PIG.

```
hdfs dfs -mkdir assgn4
hdfs dfs -put ./full_clean_text.txt ./assgn4/.
hdfs dfs -put ./cities_clean.txt ./assgn4/.
export PIG_HEAPSIZE=8192
```

A terminal window titled 'root@sandbox:~/assgn4' showing a series of HDFS commands and their outputs. The commands include creating a directory, listing contents, and uploading files. The output shows a directory listing with 7 items and a file upload confirmation for two files.

```
root@sandbox:~/assgn4
[root@sandbox assgn4]# hdfs dfs -mkdir assgn4
[root@sandbox assgn4]# hdfs dfs -ls
Found 7 items
drwx----- - root root      0 2016-10-07 19:41 .Trash
drwxr-xr-x - root root      0 2016-10-07 19:30 .hiveJars
drwx----- - root root      0 2016-09-16 00:35 .staging
drwxr-xr-x - root root      0 2016-11-06 23:02 assgn4
drwxr-xr-x - root root      0 2016-10-07 19:55 assignment2
-rw-r--r--  3 root root 5589917 2016-09-16 00:30 local_copy.txt
-rw-r--r--  3 root root 5589917 2016-09-16 00:26 shakespeare_100.txt
[root@sandbox assgn4]# hdfs dfs -put ./full_clean_text.txt ./assgn4/.
[root@sandbox assgn4]# hdfs dfs -put ./cities_clean.txt ./assgn4/.
cities_clean.txt      full_clean_text.txt
[root@sandbox assgn4]# hdfs dfs -ls ./assgn4/
Found 2 items
-rw-r--r--  3 root root    237742 2016-11-06 23:05 assgn4/cities_clean.txt
-rw-r--r--  3 root root 42411861 2016-11-06 23:03 assgn4/full_clean_text.txt
[root@sandbox assgn4]#
```

1. 

```
data = LOAD '/user/root/assgn4/full_clean_text.txt' USING
PigStorage('\t') AS (user_id:chararray, lat:float, lon:float,
tweet:chararray, mod_lat:int, mod_lon:int);
tenpctsample = SAMPLE data 0.1;
STORE tenpctsample INTO '/user/root/assgn4/full_text_small.txt'
USING PigStorage('\t');
quit
```

```
hdfs dfs -get /user/root/assgn4/full_text_clean.txt/part-m-00000
./full_text_clean.txt
```

```
root@sandbox:~/assign4
[root@sandbox assign4]# pig
WARNING: Use "yarn jar" to launch YARN applications.
16/11/06 23:19:04 INFO pig.ExecTypeProvider: Trying ExecType : LOCAL
16/11/06 23:19:04 INFO pig.ExecTypeProvider: Trying ExecType : MAPREDUCE
16/11/06 23:19:04 INFO pig.ExecTypeProvider: Picked MAPREDUCE as the ExecType
2016-11-06 23:19:04,563 [main] INFO org.apache.pig.Main - Apache Pig version 0.15.0.2.4.0.0-169 (reexported) compiled Feb 10 2016, 07:50:04
2016-11-06 23:19:04,563 [main] INFO org.apache.pig.Main - Logging error messages to: /root/assign4/pig_1478474344560.log
2016-11-06 23:19:04,595 [main] INFO org.apache.pig.impl.util.Utils - Default bootup file /root/.pigbootup not found
2016-11-06 23:19:05,373 [main] INFO org.apache.pig.backend.hadoop.executionengine.HExecutionEngine - Connecting to hadoop file system at: hdfs://sandbox.hortonworks.com:8020
2016-11-06 23:19:06,602 [main] INFO org.apache.pig.PigServer - Pig Script ID for the session: PIG-default-c8e46f50-723e-4b5f-8f6e-c48a90b0946e
2016-11-06 23:19:07,313 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-06 23:19:07,664 [main] INFO org.apache.pig.backend.hadoop.ATSService - Created ATS Hook
grunt> data = LOAD '/user/root/assign4/full_clean_text.txt' USING PigStorage('\t') AS (user_id:chararray, lat:float, lon:float, tweet:chararray);
grunt> tempctsampl = SAMPLE data 0.1;
grunt> STORE tempctsampl INTO '/user/root/assign4/full_text_small.txt' USING PigStorage('\t');
2016-11-06 23:19:16,928 [main] INFO org.apache.pig.tools.pigstats.ScriptState - Pig features used in the script: FILTER, Filter, MergeForEach, PartitionFilterOptimizer, PredicatePushdownOptimizer, PushdownForEachFlatten, PushupFilter, SplitFilter, StreamTypeCastInserter}
2016-11-06 23:19:16,981 [main] INFO org.apache.pig.data.SchemaTupleBackend - Key [pig.schematuple] was not set... will not generate code.
2016-11-06 23:19:17,053 [main] INFO org.apache.pig.newplan.logical.optimizer.LogicalPlanOptimizer - {RULES_ENABLED=[AddForEach, ColumnMapKeyPrune, ConstantCalculator, GroupByConstParallelSetter, LimitOptimizer, LoadTypeCastInserter, MergeFilter, MergeForEach, PartitionFilterOptimizer, PredicatePushdownOptimizer, PushdownForEachFlatten, PushupFilter, SplitFilter, StreamTypeCastInserter]}
2016-11-06 23:19:17,294 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MRCompiler - File concatenation threshold: 100 optimistic? false
2016-11-06 23:19:17,355 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MultiQueryOptimizer - MR plan size before optimization: 1
2016-11-06 23:19:17,356 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MultiQueryOptimizer - MR plan size after optimization: 1
2016-11-06 23:19:17,715 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-06 23:19:17,726 [main] INFO org.apache.hadoop.yarn.client.RMPProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-06 23:19:18,077 [main] INFO org.apache.pig.tools.pigstats.mapreduce.MRScriptState - Pig script settings are added to the job
2016-11-06 23:19:18,088 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - mapred.job.reduce.markreset.buffer.percent is not set, set to default 0.3
2016-11-06 23:19:18,093 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - This job cannot be converted run in-process
2016-11-06 23:19:18,466 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - Added jar file:/usr/hdp/2.4.0.0-169/pig/pig-0.15.0.2.4.0.0-169-core-h2.jar to DistributedCache through /tmp/temp-771203570/tmp-724264408/pig-0.15.0.2.4.0.0-169-core-h2.jar
2016-11-06 23:19:18,505 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - Added jar file:/usr/hdp/2.4.0.0-169/pig/lib/automaton-1.11-8.jar to DistributedCache through /tmp/temp-771203570/tmp-2109562121/automaton-1.11-8.jar
2016-11-06 23:19:18,550 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - Added jar file:/usr/hdp/2.4.0.0-169/pig/lib/antlr-runtime-3.4.jar to DistributedCache through /tmp/temp-771203570/tmp-836395671/antlr-runtime-3.4.jar
2016-11-06 23:19:18,601 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.JobControlCompiler - A
```

```

root@sandbox:~/assgn4
2016-11-06 23:19:46,363 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MapReduceLauncher - 100% complete
2016-11-06 23:19:46,367 [main] INFO org.apache.pig.tools.pigstats.mapreduce.SimplePigStats - Script Statistics:

HadoopVersion PigVersion UserId StartedAt FinishedAt Features
2.7.1.2.4.0-169 0.15.0.2.4.0-169 root 2016-11-06 23:19:18 2016-11-06 23:19:46 FILTER

Success!

Job Stats (time in seconds):
JobId Maps Reduces MaxMapTime MinMapTime AvgMapTime MedianMapTime MaxReduceTime MinReduceTime
AvgReduceTime MedianReduceTime Alias Feature Outputs
job_1478472140479_0002 1 0 8 8 8 0 0 0 0 data,tenpctsample
MAP_ONLY /user/root/assgn4/full_text_small.txt,

Input(s):
Successfully read 377616 records (42412260 bytes) from: "/user/root/assgn4/full_clean_text.txt"

Output(s):
Successfully stored 37819 records (3935405 bytes) in: "/user/root/assgn4/full_text_small.txt"

Counters:
Total records written : 37819
Total bytes written : 3935405
Spillable Memory Manager spill count : 0
Total bags proactively spilled: 0
Total records proactively spilled: 0

Job DAG:
job_1478472140479_0002

2016-11-06 23:19:46,510 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-06 23:19:46,510 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-06 23:19:46,520 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-06 23:19:46,706 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-06 23:19:46,707 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-06 23:19:46,715 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-06 23:19:47,039 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-06 23:19:47,040 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-06 23:19:47,063 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-06 23:19:47,132 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MapReduceLauncher - Success!
grunt>

```

2. a = LOAD '/user/root/assgn4/full\_clean\_text.txt' USING PigStorage('\t') AS (user\_id:chararray, lat:float, lon:float, tweet:chararray, mod\_lat:int, mod\_lon:int);  
b = FOREACH a GENERATE FLATTEN(TOKENIZE(tweet)) AS token;  
c = GROUP b BY token;  
d = FOREACH c GENERATE group as token, COUNT\_STAR(b) as cnt;  
e = ORDER d BY cnt DESC;  
f = LIMIT e 3;  
DUMP f;

```

root@sandbox:~/assgn4
grunt> a = LOAD '/user/root/assgn4/full_clean_text.txt' USING PigStorage('\t') AS (user_id:chararray, lat:float, lon:float, tweet:chararray);
grunt> b = FOREACH a GENERATE FLATTEN(TOKENIZE(tweet)) AS token;
grunt> c = GROUP b BY token;
grunt> d = FOREACH c GENERATE group as token, COUNT_STAR(b) as cnt;
grunt> e = ORDER d BY cnt DESC;
grunt> f = LIMIT e 3;
grunt> DUMP f;

```

```

2016-11-06 23:45:58,125 [main] INFO org.apache.pig.backend.hadoop.executionengine.util.MapRedUtil - Total input paths t
(I,109447)
(RT,78153)
(the,75595)
grunt>

```

3. a = LOAD '/user/root/assgn4/cities\_clean.txt' AS  
 (city\_name:chararray, real\_lat:float, real\_lon:float,  
 mod\_lat:int, mod\_lon:int);  
 b = GROUP a ALL;  
 c = FOREACH b GENERATE COUNT(a);  
 DUMP c;

```

root@sandbox:~/assgn4
grunt> a = LOAD '/user/root/assgn4/cities_clean.txt' AS (city_name:chararray, real_lat:float, real_lon:float, mod_lat:in
t, mod_lon:int);
grunt> b = GROUP a ALL;
grunt> c = FOREACH b GENERATE COUNT(a);
grunt> DUMP c;

2016-11-06 23:59:14,255 [main] INFO org.apache.pig.backend.hadoop.executionengine.util.MapRedUtil - Total input paths t
(6360)
grunt>

```

4. tweets = LOAD '/user/root/assgn4/full\_clean\_text.txt'  
 USING PigStorage('\t') AS (  
     user\_id:chararray,  
     real\_lat:float,  
     real\_lon:float,  
     tweet:chararray,  
     mod\_lat:int,  
     mod\_lon:int  
 );  
  
 cities = LOAD '/user/root/assgn4/cities\_clean.txt' AS (  
     city\_name:chararray,  
     real\_lat:float,  
     real\_lon:float,  
     mod\_lat:int,  
     mod\_lon:int  
 );  
  
 combined = JOIN tweets BY  
     (mod\_lat, mod\_lon) LEFT OUTER,  
     cities BY (mod\_lat, mod\_lon)  
     USING 'replicated';  
  
 distances = FOREACH combined GENERATE  
     tweets::user\_id AS user\_id,  
     tweets::tweet AS tweet,  
     cities::city\_name AS city\_name,



```

        SQRT((tweets::real_lat - cities::real_lat) *
(tweets::real_lat - cities::real_lat) + (tweets::real_lon -
cities::real_lon) * (tweets::real_lon - cities::real_lon)) as
real_dist
;

grouped = GROUP distances BY (user_id, tweet);

min_distance = FOREACH grouped
    GENERATE group,
    MIN(distances.real_dist) as distance,
    FLATTEN(distances);

min_distance_filtered = FILTER min_distance BY distance ==
distances::real_dist;

result = FOREACH min_distance_filtered GENERATE
    FLATTEN(group) AS (user_id, tweet),
    distance,
    distances::city_name AS city_name;

STORE result INTO '/user/root/assgn4/tweets_by_city' USING
PigStorage('\t');

```

```

root@sandbox:~#
2016-11-08 04:59:01,598 [main] INFO org.apache.pig.tools.pigstats.mapreduce.SimplePigStats - Script Statistics:
HadoopVersion PigVersion UserId StartedAt FinishedAt Features
2.7.1.2.4.0-0-169 0.15.0.2.4.0-0-169 root 2016-11-08 04:55:11 2016-11-08 04:59:01 REPLICATED_JOIN, GROUP_BY, FILTER
Success!

Job Stats (time in seconds):
JobId Maps Reduces MaxMapTime MinMapTime AvgMapTime MedianMapTime MaxReduceTime MinReduceTime AvgReduceTime MedianReduceTime Alias Feature Outputs
job_1478578296599_0001 1 0 4 4 4 4 0 0 0 0 cities MAP_ONLY
job_1478578296599_0002 1 1 100 100 100 100 70 70 70 70 combined_distances, grouped, min_distance, min_distance_filtered, result, tweets REPLICATED_JOIN, GROUP_BY /user/root/assgn4/tweets_by_city,

Input(s):
Successfully read 6360 records (238138 bytes) from: "/user/root/assgn4/cities_clean.txt"
Successfully read 377616 records (42412280 bytes) from: "/user/root/assgn4/full_clean_text.txt"

Output(s):
Successfully stored 375567 records (43316621 bytes) in: "/user/root/assgn4/tweets_by_city"

Counters:
Total records written : 375567
Total bytes written : 43316621
Spillable Memory Manager spill count : 0
Total bags proactively spilled: 0
Total records proactively spilled: 0

Job DAG:
job_1478578296599_0001 -> job_1478578296599_0002,
job_1478578296599_0002

2016-11-08 04:59:01,692 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:01,692 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:01,703 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:01,800 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:01,800 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:01,895 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:02,041 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:02,041 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:02,050 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:02,131 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:02,131 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:02,191 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:02,331 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:02,331 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:02,348 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:02,519 [main] INFO org.apache.hadoop.yarn.client.api.impl.TimelineClientImpl - Timeline service address: http://sandbox.hortonworks.com:8188/ws/v1/timeline/
2016-11-08 04:59:02,519 [main] INFO org.apache.hadoop.yarn.client.RMProxy - Connecting to ResourceManager at sandbox.hortonworks.com/10.0.2.15:8050
2016-11-08 04:59:02,531 [main] INFO org.apache.hadoop.mapred.ClientServiceDelegate - Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting to job history server
2016-11-08 04:59:02,574 [main] INFO org.apache.pig.backend.hadoop.executionengine.mapreduce.Launcher - Success!
grunt:

```

Result:

```

[root@sandbox ~]# hdfs dfs -ls /user/root/assgn4
Found 2 items
-rw-r--r--  3 root root      237742 2016-11-07 06:40 /user/root/assgn4/cities_clean.txt
-rw-r--r--  3 root root    42411861 2016-11-07 06:40 /user/root/assgn4/full_clean_text.txt
[root@sandbox ~]# hdfs dfs -ls /user/root/assgn4
Found 3 items
-rw-r--r--  3 root root      237742 2016-11-07 06:40 /user/root/assgn4/cities_clean.txt
-rw-r--r--  3 root root    42411861 2016-11-07 06:40 /user/root/assgn4/full_clean_text.txt
drwxr-xr-x  - root root          0 2016-11-08 04:58 /user/root/assgn4/tweets_by_city
[root@sandbox ~]# hdfs dfs -ls /user/root/assgn4/tweets_by_city
Found 2 items
-rw-r--r--  3 root root          0 2016-11-08 04:58 /user/root/assgn4/tweets_by_city/_SUCCESS
-rw-r--r--  3 root root    43316621 2016-11-08 04:58 /user/root/assgn4/tweets_by_city/part-r-00000
[root@sandbox ~]# hdfs dfs -head /user/root/assgn4/tweets_by_city/part-r-00000
-head: Unknown command
[root@sandbox ~]# hdfs dfs -cat /user/root/assgn4/tweets_by_city/part-r-00000 | head
USER_00024ea8 Dairy Queen! 0.027045776406856674 Marietta
USER_00024ea8 Taaaaaaake m 0.04991699160538832 Marietta
USER_00024ea8 I got dat guap$ 0.044825146547077685 Smyrna
USER_00024ea8 Headed to Wal-Mart 0.044825146547077685 Smyrna
USER_00024ea8 I H8 this dry throat cough 0.044825146547077685 Smyrna
USER_00024ea8 @USER_088c47ef no i do NOT!! 0.04991699160538832 Marietta
USER_00024ea8 @USER_af8b9459 check ya inbox 0.021096790666327588 Dunwoody
USER_00024ea8 @USER_3ad3db81 I kinda want to 0.02522525209825711 Dunwoody
USER_00024ea8 @USER_c3bd9ad5 c'mon Malcolm!! 0.044825146547077685 Smyrna
USER_00024ea8 @USER_dc86dcd5 OMG! i just died 0.044825146547077685 Smyrna
cat: Unable to write to output stream
[root@sandbox ~]#

```