POC #: Generate Analytics from a Product based Company Web Log.

by Bhavesh *on* 19:21

POC #: Generate Analytics from a Product based Company Web Log.

The POC is based on Analysing a **Product based Company Web Log.**

Industry: E-Commerce

1. Load weblog data into HDFS using HDFS client
2. Develop Pig program to load log and perform analytics on IP Category-1 Category-2 page, status_code
   - 2.1. Count of page views by individual user ie [IP, count(*)]
   - 2.2. Top / Bottom 2: catagery-1/ catagery-2 / page /users (Exclude status code other than 200)

     Top 2 and bottom 2 records
     - Category, total_number_views
     - page, total_number_views
     - IP, total_number_of_views
   - 2.3. Total page views / Category wise pageviews / Unique pageviews
     - page,total_number_of_views
     - category, total_views
     - page, total_number_of_unique_views
   - 2.4. Count of status code = 200 / 404 / 400 / 500
     - status_code, count
3. Load results into tables in MySql Database using Sqoop.

CODING DETAILS

Pig Script

weblog.pig

```
/* Develop Pig program to extract data for the following KPIs */

FILE1 = LOAD '/home/bhavesh/weblog.txt' using PigStorage(',') as (IP:chararray,Category1:chararray,Category2:chararray,page:int,statuscode:int);

GRPD = group FILE1 by IP;

IPCOUNT = foreach GRPD generate group,COUNT(FILE1.IP);

/* Count of page views by individual user ie IP, count(*) */

STORE IPCOUNT into '/home/bhavesh/Count_by_Pageview_by_IndividualUser/' using PigStorage(',');

/*(Exclude status code other than 200) */

FILE_STATUS_CODE_200 = FILTER FILE1 by statuscode == 200;

/*

Top 2 and bottom 2 records

Category, total_number_views

page, total_number_views

IP, total_number_of_views

*/

GRPD_CATEGORY1 = group FILE_STATUS_CODE_200 by Category1;

CNT_FOR_CATEGORY1 = FOREACH GRPD_CATEGORY1 generate group,COUNT(FILE_STATUS_CODE_200.Category1) as COUNTING;

SORTED_CATEGORY1_DEC = ORDER CNT_FOR_CATEGORY1 by COUNTING DESC;

TOP_2_CATEGORY1 = limit SORTED_CATEGORY1_DEC 2;

STORE TOP_2_CATEGORY1 into '/home/bhavesh/Top2_By_Category1/' using PigStorage(',');

SORTED_CATEGORY1_ASC = ORDER CNT_FOR_CATEGORY1 by COUNTING ASC;

BOTTOM_2_CATEGORY1 = limit SORTED_CATEGORY1_ASC 2;

STORE BOTTOM_2_CATEGORY1 into '/home/bhavesh/Bottom2_By_Category1/' using PigStorage(',');

GRPD_CATEGORY2 = group FILE_STATUS_CODE_200 by Category2;

CNT_FOR_CATEGORY2 = FOREACH GRPD_CATEGORY2 generate group,COUNT(FILE_STATUS_CODE_200.Category2) as COUNTING;

SORTED_CATEGORY2_DEC = ORDER CNT_FOR_CATEGORY2 by COUNTING DESC;

TOP_2_CATEGORY2 = limit SORTED_CATEGORY2_DEC 2;

STORE TOP_2_CATEGORY2 into '/home/bhavesh/Top2_By_Category2/' using PigStorage(',');
```

```
SORTED_CATEGORY2_ASC = ORDER CNT_FOR_CATEGORY2 by COUNTING ASC;

BOTTOM_2_CATEGORY2 = limit SORTED_CATEGORY2_ASC 2;

STORE BOTTOM_2_CATEGORY2 into '/home/bhavesh/Bottom2_By_Category2/' using PigStorage(',');


GRPD_PAGES = group FILE_STATUS_CODE_200 by page;

CNT_FOR_PAGE = FOREACH GRPD_PAGES generate group,COUNT(FILE_STATUS_CODE_200.page) as COUNTING;


SORTED_PAGE_DEC = ORDER CNT_FOR_PAGE by COUNTING DESC;

TOP_2_PAGE = limit SORTED_PAGE_DEC 2;

STORE TOP_2_PAGE into '/home/bhavesh/Top2_By_PAGE/' using PigStorage(',');


SORTED_PAGE_ASC = ORDER CNT_FOR_PAGE by COUNTING ASC;

BOTTOM_2_PAGE = limit SORTED_PAGE_ASC 2;

STORE BOTTOM_2_PAGE into '/home/bhavesh/Bottom2_By_PAGE/' using PigStorage(',');


GRPD_IP = group FILE_STATUS_CODE_200 by IP;

CNT_FOR_IP = FOREACH GRPD_IP generate group,COUNT(FILE_STATUS_CODE_200.IP) as COUNTING;


SORTED_IP_DEC = ORDER CNT_FOR_IP by COUNTING DESC;

TOP_2_IP = limit SORTED_IP_DEC 2;

STORE TOP_2_IP into '/home/bhavesh/Top2_By_IP/' using PigStorage(',');


SORTED_IP_ASC = ORDER CNT_FOR_IP by COUNTING ASC;

BOTTOM_2_IP = limit SORTED_IP_ASC 2;

STORE BOTTOM_2_IP into '/home/bhavesh/Bottom2_By_IP/' using PigStorage(',');


/* Total page views / Category wise pageviews / Unique pageviews

page,total_number_of_views

category, total_views

page, total_number_of_unique_views */


GRPD_TOTALPAGES = group FILE1 by page;

CNT_FOR_TOTALPAGE = FOREACH GRPD_TOTALPAGES generate group,COUNT(FILE1.page) as COUNTING;

SORTED_PAGES_DEC = ORDER CNT_FOR_TOTALPAGE by COUNTING DESC;

STORE SORTED_PAGES_DEC into '/home/bhavesh/Total_PAGES_Count/' using PigStorage(',');


GRPD_TOTALCATEGORY1 = group FILE1 by Category1;

CNT_FOR_TOTALCATEGORY1 = FOREACH GRPD_TOTALCATEGORY1 generate group,COUNT(FILE1.page) as COUNTING;

SORTED_TOTALCATEGORY1_DEC = ORDER CNT_FOR_TOTALCATEGORY1 by COUNTING DESC;

STORE SORTED_TOTALCATEGORY1_DEC into '/home/bhavesh/Total_Category1_Count/' using PigStorage(',');


GRPD_TOTALCATEGORY2 = group FILE1 by Category2;

CNT_FOR_TOTALCATEGORY2 = FOREACH GRPD_TOTALCATEGORY2 generate group,COUNT(FILE1.page) as COUNTING;
```

```
SORTED_TOTALCATEGORY2_DEC = ORDER CNT_FOR_TOTALCATEGORY2 by COUNTING DESC;

STORE SORTED_TOTALCATEGORY2_DEC into '/home/bhavesh/Total_Category2_Count/' using PigStorage(',');


GRPD_TOTALPAGES_UNIQUEVIEW = group FILE1 by page;

CNT_FOR_TOTALPAGE_UNIQUEVIEW = FOREACH GRPD_TOTALPAGES_UNIQUEVIEW {
                                        internet_protocol = FILE1.IP;
                                        unique_internet_protocol = DISTINCT internet_protocol;
                                        GENERATE group, COUNT(unique_internet_protocol);
                                        };
STORE CNT_FOR_TOTALPAGE_UNIQUEVIEW into '/home/bhavesh/Page_Total_Number_Of_Unique_Views/' using PigStorage(',');


/*
Count of status code = 200 / 404 / 400 / 500
status_code, count
*/


GRPD = group FILE1 by statuscode;

STATUS_CODE_COUNT = foreach GRPD generate group,COUNT(FILE1.statuscode);


STORE STATUS_CODE_COUNT into '/home/bhavesh/Status_Code_Count/' using PigStorage(',');
```

Shell Script

```
#########################################################################
############################## COMPLETE SCRIPT ######################
### HEADER - PROGRAM NAME - <weblog.sh>                                 ###
### AUTHOR - BHAVESH BHADRICHA                                          ###
### DATE  - 11/DEC/2015                                                 ###
### VERSION - 1.0                                                       ###
### DESCRIPTION - Data: It comprises of the information gathered from websites  ###
### which contains IP, Two Categories of Product, Pages and Status Code ###
###                                                                     ###
### Problem Statement: Analyse the data in Hadoop Eco-system to:        ###
### 1.Load data into HDFS using HDFS client                             ###
###                                                                     ###
### 2. Develop PIG program to parse WEB logs and meaning full result from it  ###
###    INUPT file Format                                                ###
###    IP,Category-1,Category-2,page status_code                        ###
###                                                                     ###
### PIG program to extract data for the following                       ###
###                                                                     ###
### 3. Count of page views by individual user                           ###
###    IP, count(*)                                                     ###
###                                                                     ###
```

```
### 4. Top / Bottom 5: catagery-1/ catagery-2 / page /users                    ###
###    (Exclude status code other than 200)                                   ###
###                                                                           ###
###    Top 5 and bottom 5 records                                             ###
###    Category, total_number_views                                           ###
###    page, total_number_views                                               ###
###    IP, total_number_of_views                                              ###
###                                                                           ###
### 5. Total page views / Category wise pageviews / Unique pageviews          ###
###                                                                           ###
###     page,total_number_of_views                                            ###
###                                  category, total_views                    ###
###                                  page, total_number_of_unique_views       ###
###                                                                           ###
### 6. Count of status code = 200 / 404 / 400 / 500                           ###
###    status_code, count                                                     ###
###                                                                           ###
### 7. Load results into tables in MySql Database using Sqoop.?               ###
#################################################################
#################################################################
#################################################################
###DEFINING THE LOCAL VARIABLES###
#################################################################
DATE=$(date +"%Y%m%d_%H%M%S")
LOGFILE="/home/bhavesh/POC/WEBLOG_POC/LOG/"$DATE".log"
#################################################################
###  Load data into HDFS using HDFS client  ###################################
#################################################################

hadoop fs -put weblog.txt /home/bhavesh/weblog.txt

########################## PIG Processing ##############################
#### PIG, which splits the data into two parts: Category data and Ratings data ###
#################################################################

echo "Pig Script starts here"

echo "PIG Script,Weblog Processing" >> $LOGFILE

hadoop fs -rmr /home/bhavesh/Total_Category1_Count
hadoop fs -rmr /home/bhavesh/Bottom2_By_PAGE
hadoop fs -rmr /home/bhavesh/Top2_By_Category1
hadoop fs -rmr /home/bhavesh/Top2_By_IP
hadoop fs -rmr /home/bhavesh/Total_PAGES_Count
```

```
hadoop fs -rmr /home/bhavesh/Bottom2_By_IP

hadoop fs -rmr /home/bhavesh/Bottom2_By_Category2

hadoop fs -rmr /home/bhavesh/Status_Code_Count

hadoop fs -rmr /home/bhavesh/Count_by_Pageview_by_IndividualUser

hadoop fs -rmr /home/bhavesh/Page_Total_Number_Of_Unique_Views

hadoop fs -rmr /home/bhavesh/Total_Category2_Count

hadoop fs -rmr /home/bhavesh/Bottom2_By_Category1

hadoop fs -rmr /home/bhavesh/Top2_By_Category2

hadoop fs -rmr /home/bhavesh/Top2_By_PAGE


pig /home/bhavesh/POC/WEBLOG_POC/weblog.pig


if [ $? -eq 0 ]; then

   echo "Succesfully finished PIG  Processing " >> $LOGFILE

else

   echo "PIG Processing Failed Please check the Log " >> $LOGFILE

fi




############################## HIVE Processing ###############################

###### HIVE will load the Category data and Rating Data into Hive Tables  ##########

#########################################################################


echo "HIVE Script starts here"


echo "HIVE LOAD data into Table " >> $LOGFILE


hive -e 'drop table if exists TotalCategory1Count';

hive -e 'drop table if exists Bottom2ByPAGE';

hive -e 'drop table if exists Top2ByCategory1';

hive -e 'drop table if exists Top2ByIP';

hive -e 'drop table if exists TotalPAGESCount';

hive -e 'drop table if exists Bottom2ByIP';

hive -e 'drop table if exists Bottom2ByCategory2';

hive -e 'drop table if exists StatusCodeCount';

hive -e 'drop table if exists CountbyPageviewbyIndividualUser';

hive -e 'drop table if exists PageTotalNumberOfUniqueViews';

hive -e 'drop table if exists TotalCategory2Count';

hive -e 'drop table if exists Bottom2ByCategory1';

hive -e 'drop table if exists Top2ByCategory2';

hive -e 'drop table if exists Top2ByPAGE';


hive -e "create external table TotalCategory1Count

(Category1 string,
```

```
countings int)
row format delimited
fields terminated by','
lines terminated by '\n'
stored as textfile location '/home/bhavesh/hive/TotalCategory1Count'";

hive -e "create external table Bottom2ByPAGE
(Pages int,
countings int)
row format delimited
fields terminated by','
lines terminated by '\n'
stored as textfile location '/home/bhavesh/hive/Bottom2ByPAGE'";

hive -e "create external table Top2ByCategory1
(Category1 string,
countings int)
row format delimited
fields terminated by','
lines terminated by '\n'
stored as textfile location '/home/bhavesh/hive/Top2ByCategory1'";


hive -e "create external table Top2ByIP
(IP string,
countings int)
row format delimited
fields terminated by','
lines terminated by '\n'
stored as textfile location '/home/bhavesh/hive/Top2ByIP'";

hive -e "create external table TotalPAGESCount
(PAGES int,
countings int)
row format delimited
fields terminated by','
lines terminated by '\n'
stored as textfile location '/home/bhavesh/hive/TotalPAGESCount'";

hive -e "create external table Bottom2ByIP
(IP string,
countings int)
row format delimited
fields terminated by','
```

```
lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/Bottom2ByIP'";


hive -e "create external table Bottom2ByCategory2

(Category2 string,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/Bottom2ByCategory2'";


hive -e "create external table StatusCodeCount

(StatusCode int,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/StatusCodeCount'";


hive -e "create external table CountbyPageviewbyIndividualUser

(IP string,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/CountbyPageviewbyIndividualUser'";


hive -e "create external table PageTotalNumberOfUniqueViews

(page int,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/PageTotalNumberOfUniqueViews'";


hive -e "create external table TotalCategory2Count

(Category2 string,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/TotalCategory2Count'";


hive -e "create external table Bottom2ByCategory1
```

(Category1 string,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/Bottom2ByCategory1'";

hive -e "create external table Top2ByCategory2

(Category2 string,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/Top2ByCategory2'";

hive -e "create external table Top2ByPAGE

(page int,

countings int)

row format delimited

fields terminated by','

lines terminated by '\n'

stored as textfile location '/home/bhavesh/hive/Top2ByPAGE'";

hive -e "load data inpath '/home/bhavesh/Total_Category1_Count/part-r-00000' overwrite into table TotalCategory1Count";

hive -e "load data inpath '/home/bhavesh/Bottom2_By_PAGE/part-r-00000' overwrite into table Bottom2ByPAGE";

hive -e "load data inpath '/home/bhavesh/Top2_By_Category1/part-r-00000' overwrite into table Top2ByCategory1";

hive -e "load data inpath '/home/bhavesh/Top2_By_IP/part-r-00000' overwrite into table Top2ByIP";

hive -e "load data inpath '/home/bhavesh/Total_PAGES_Count/part-r-00000' overwrite into table TotalPAGESCount";

hive -e "load data inpath '/home/bhavesh/Bottom2_By_IP/part-r-00000' overwrite into table Bottom2ByIP";

hive -e "load data inpath '/home/bhavesh/Bottom2_By_Category2/part-r-00000' overwrite into table Bottom2ByCategory2";

hive -e "load data inpath '/home/bhavesh/Status_Code_Count/part-r-00000' overwrite into table StatusCodeCount";

hive -e "load data inpath '/home/bhavesh/Count_by_Pageview_by_IndividualUser/part-r-00000' overwrite into table CountbyPageviewbyIndividualUser";

hive -e "load data inpath '/home/bhavesh/Page_Total_Number_Of_Unique_Views/part-r-00000' overwrite into table PageTotalNumberOfUniqueViews";

hive -e "load data inpath '/home/bhavesh/Total_Category2_Count/part-r-00000' overwrite into table TotalCategory2Count";

hive -e "load data inpath '/home/bhavesh/Bottom2_By_Category1/part-r-00000' overwrite into table Bottom2ByCategory1";

hive -e "load data inpath '/home/bhavesh/Top2_By_Category2/part-r-00000' overwrite into table Top2ByCategory2";

hive -e "load data inpath '/home/bhavesh/Top2_By_PAGE/part-r-00000' overwrite into table Top2ByPAGE";

############################ SQOOP Processing ##############################

Pushing the HIVE Tale data into RDBMS Tables via SQOOP

###

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table TotalCategory1Count --export-dir /home/bhavesh/hive/TotalCategory1Count/part-r-00000

--input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Bottom2ByPAGE --export-dir /home/bhavesh/hive/Bottom2ByPAGE/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Top2ByCategory1 --export-dir /home/bhavesh/hive/Top2ByCategory1/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Top2ByIP --export-dir /home/bhavesh/hive/Top2ByIP/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table TotalPAGESCount --export-dir /home/bhavesh/hive/TotalPAGESCount/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Bottom2ByIP --export-dir /home/bhavesh/hive/Bottom2ByIP/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Bottom2ByCategory2 --export-dir /home/bhavesh/hive/Bottom2ByCategory2/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table StatusCodeCount --export-dir /home/bhavesh/hive/StatusCodeCount/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table CountbyPageviewbyIndividualUser --export-dir /home/bhavesh/hive/CountbyPageviewbyIndividualUser/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table PageTotalNumberOfUniqueViews --export-dir /home/bhavesh/hive/PageTotalNumberOfUniqueViews/part-r-00000 --input-fields-terminated-by ',';

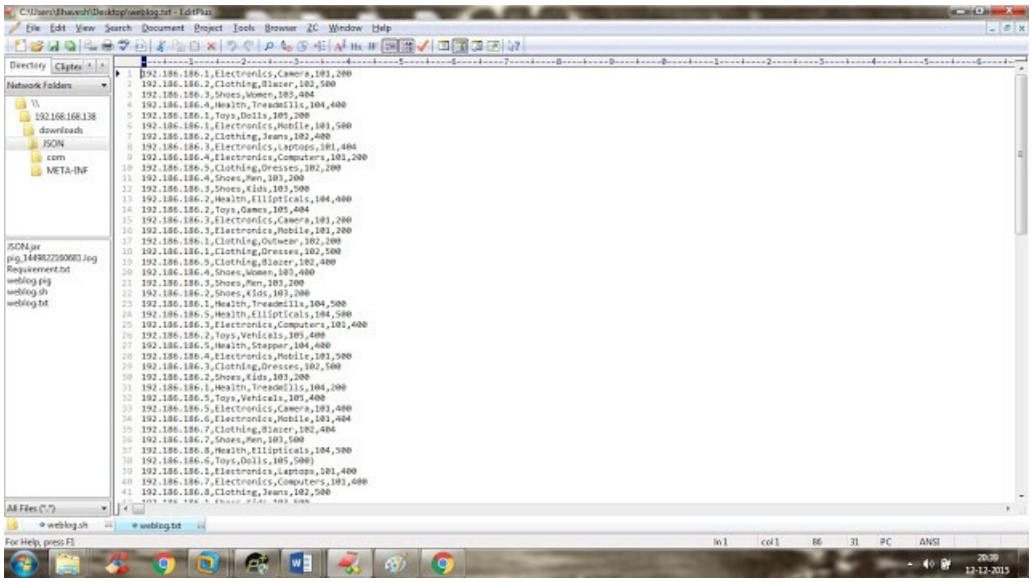
sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table TotalCategory2Count --export-dir /home/bhavesh/hive/TotalCategory2Count/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Bottom2ByCategory1 --export-dir /home/bhavesh/hive/Bottom2ByCategory1/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Top2ByCategory2 --export-dir /home/bhavesh/hive/Top2ByCategory2/part-r-00000 --input-fields-terminated-by ',';

sqoop export --connect jdbc:mysql://localhost/mysql --username root --password root --table Top2ByPAGE --export-dir /home/bhavesh/hive/Top2ByPAGE/part-r-00000 --input-fields-terminated-by ',';

Input Data



Script Execution

```
root@ubuntu:/home/bhavesh/POC/WEBLOG_POC# ./weblog.sh
Pig Script starts here
rmr: cannot remove /home/bhavesh/Total_Category1_Count: No such file or directory.
rmr: cannot remove /home/bhavesh/Bottom2_By_PAGE: No such file or directory.
rmr: cannot remove /home/bhavesh/Top2_By_Category1: No such file or directory.
rmr: cannot remove /home/bhavesh/Top2_By_IP: No such file or directory.
rmr: cannot remove /home/bhavesh/Total_PAGES_Count: No such file or directory.
rmr: cannot remove /home/bhavesh/Bottom2_By_IP: No such file or directory.
rmr: cannot remove /home/bhavesh/Bottom2_By_Category2: No such file or directory.
Deleted hdfs://localhost:8020/home/bhavesh/Status_Code_Count
Deleted hdfs://localhost:8020/home/bhavesh/Count_by_Pageview_by_IndividualUser
Deleted hdfs://localhost:8020/home/bhavesh/Page_Total_Number_Of_Unique_Views
Deleted hdfs://localhost:8020/home/bhavesh/Total_Category2_Count
Deleted hdfs://localhost:8020/home/bhavesh/Bottom2_By_Category1
```

```
Input(s):
Successfully read 86 records (3693 bytes) from: "/home/bhavesh/weblog.txt"

Output(s):
Successfully stored 5 records (35 bytes) in: "/home/bhavesh/Total_PAGES_Count"
Successfully stored 2 records (32 bytes) in: "/home/bhavesh/Bottom2_By_IP"
Successfully stored 2 records (12 bytes) in: "/home/bhavesh/Top2_By_PAGE"
Successfully stored 2 records (20 bytes) in: "/home/bhavesh/Bottom2_By_Category1"
Successfully stored 2 records (21 bytes) in: "/home/bhavesh/Top2_By_Category1"
Successfully stored 17 records (162 bytes) in: "/home/bhavesh/Total_Category2_Count"
Successfully stored 5 records (30 bytes) in: "/home/bhavesh/Status_Code_Count"
Successfully stored 5 records (29 bytes) in: "/home/bhavesh/Page_Total_Number_Of_Unique_Views"
Successfully stored 8 records (132 bytes) in: "/home/bhavesh/Count_by_Pageview_by_IndividualUser"
Successfully stored 2 records (32 bytes) in: "/home/bhavesh/Top2_By_IP"
Successfully stored 5 records (54 bytes) in: "/home/bhavesh/Total_Category1_Count"
Successfully stored 2 records (12 bytes) in: "/home/bhavesh/Bottom2_By_PAGE"
Successfully stored 2 records (22 bytes) in: "/home/bhavesh/Bottom2_By_Category2"
Successfully stored 2 records (15 bytes) in: "/home/bhavesh/Top2_By_Category2"
```

```
2015-12-12 00:47:39,449 [main] INFO  org.apache.pig.backend.hadoop.executionengine.mapReduceLayer.MapReduceLauncher - Success!
HIVE Script starts here
Hive history file=/tmp/root/hive_job_log_root_201512120047_177261252.txt
OK
Time taken: 14.124 seconds
Hive history file=/tmp/root/hive_job_log_root_201512120048_694489129.txt
OK
Time taken: 8.908 seconds
Hive history file=/tmp/root/hive_job_log_root_201512120048_1401957871.txt
OK
Time taken: 9.651 seconds
Hive history file=/tmp/root/hive_job_log_root_201512120048_949202696.txt
OK
Time taken: 9.0 seconds
Hive history file=/tmp/root/hive_job_log_root_201512120048_1836695866.txt
OK
```

```
15/12/12 06:26:12 INFO manager.SqlManager: Executing SQL statement: SELECT t.* FROM `TotalCategory2Count` AS t LIMIT 1
15/12/12 06:26:12 INFO orm.CompilationManager: HADOOP_HOME is /usr/lib/hadoop
15/12/12 06:26:12 INFO orm.CompilationManager: Found hadoop core jar at: /usr/lib/hadoop/hadoop-0.20.2-cdh3u5-core.jar
15/12/12 06:26:15 INFO orm.CompilationManager: Writing jar file: /tmp/sqoop-root/compile/756e2f76c551046ecbaeaf7d8cfc0e29/TotalCategory2Coun
15/12/12 06:26:15 INFO mapreduce.ExportJobBase: Beginning export of TotalCategory2Count
15/12/12 06:26:17 INFO input.FileInputFormat: Total input paths to process : 1
15/12/12 06:26:17 INFO input.FileInputFormat: Total input paths to process : 1
15/12/12 06:26:17 INFO mapred.JobClient: Running job: job_201512120558_0034
15/12/12 06:26:18 INFO mapred.JobClient:  map 0% reduce 0%
15/12/12 06:26:26 INFO mapred.JobClient:  map 100% reduce 0%
15/12/12 06:26:28 INFO mapred.JobClient: Job complete: job_201512120558_0034
15/12/12 06:26:29 INFO mapred.JobClient: Counters: 16
15/12/12 06:26:29 INFO mapred.JobClient:   Job Counters
15/12/12 06:26:29 INFO mapred.JobClient:     SLOTS_MILLIS_MAPS=9375
15/12/12 06:26:29 INFO mapred.JobClient:     Total time spent by all reduces waiting after reserving slots (ms)=0
15/12/12 06:26:29 INFO mapred.JobClient:     Total time spent by all maps waiting after reserving slots (ms)=0
15/12/12 06:26:29 INFO mapred.JobClient:     Launched map tasks=1
15/12/12 06:26:29 INFO mapred.JobClient:     Data-local map tasks=1
15/12/12 06:26:29 INFO mapred.JobClient:     SLOTS_MILLIS_REDUCES=0
15/12/12 06:26:29 INFO mapred.JobClient:   FileSystemCounters
15/12/12 06:26:29 INFO mapred.JobClient:     HDFS_BYTES_READ=311
15/12/12 06:26:29 INFO mapred.JobClient:     FILE_BYTES_WRITTEN=70360
15/12/12 06:26:29 INFO mapred.JobClient:   Map-Reduce Framework
15/12/12 06:26:29 INFO mapred.JobClient:     Map input records=17
15/12/12 06:26:29 INFO mapred.JobClient:     Physical memory (bytes) snapshot=134377472
15/12/12 06:26:29 INFO mapred.JobClient:     Spilled Records=0
15/12/12 06:26:29 INFO mapred.JobClient:     CPU time spent (ms)=1940
15/12/12 06:26:29 INFO mapred.JobClient:     Total committed heap usage (bytes)=39911424
15/12/12 06:26:29 INFO mapred.JobClient:     Virtual memory (bytes) snapshot=456220672
15/12/12 06:26:29 INFO mapred.JobClient:     Map output records=17
15/12/12 06:26:29 INFO mapred.JobClient:     SPLIT_RAW_BYTES=143
15/12/12 06:26:29 INFO mapreduce.ExportJobBase: Transferred 311 bytes in 13.0613 seconds (23.8107 bytes/sec)
```

Hive Output

```
hive> select * from TotalCategory1Count;
OK
Electronics     21
Shoes   18
Health  17
Clothing        17
Toys    13
Time taken: 7.382 seconds
hive> select * from Bottom2ByPAGE;
OK
104     3
102     4
Time taken: 0.121 seconds
hive> select * from Top2ByCategory1;
OK
Electronics     9
Toys    6
Time taken: 0.203 seconds
hive> select * from Top2ByIP;
OK
192.186.186.1   7
192.186.186.3   6
Time taken: 0.111 seconds
```

```
hive> select * from TotalPAGESCount;
OK
101     21
103     18
102     17
104     17
105     13
Time taken: 0.146 seconds
hive> select * from Bottom2ByIP;
OK
192.186.186.8   1
192.186.186.4   2
Time taken: 0.177 seconds
hive> select * from Bottom2ByCategory2;
OK
Ellipticals     1
Jeans   1
Time taken: 0.208 seconds
hive> select * from StatusCodeCount;
OK
200     27
400     21
404     11
500     24
NULL    0
Time taken: 0.334 seconds
```

```
hive> select * from CountbyPageviewbyIndividualUser;
OK
192.186.186.1   15
192.186.186.2   13
192.186.186.3   13
192.186.186.4   12
192.186.186.5   12
192.186.186.6   8
192.186.186.7   9
192.186.186.8   4
Time taken: 0.191 seconds
hive> select * from PageTotalNumberOfUniqueViews;
OK
101     8
102     8
103     8
104     8
105     5
Time taken: 0.319 seconds
```

```
hive> select * from TotalCategory2Count;
OK
Camera  8
Ellipticals     8
Men     7
Mobile  6
Kids    6
Games   5
Women   5
Blazer  5
Dolls   5
Dresses 5
Treadmills      5
Stepper 4
Laptops 4
Jeans   4
Outwear 3
Vehicals        3
Computers       3
Time taken: 0.26 seconds
hive> select * from Bottom2ByCategory1;
OK
Health  3
Clothing        4
Time taken: 0.122 seconds
```

```
hive> select * from Bottom2ByCategory1;
OK
Health  3
Clothing        4
Time taken: 0.122 seconds
hive> select * from Top2ByCategory2;
OK
Camera  5
Men     3
Time taken: 0.133 seconds
hive> select * from Top2ByPAGE;
OK
101     9
105     6
Time taken: 0.121 seconds
hive>
```

MySQL Output

```
mysql> select * from TotalCategory1Count;
+-------------+-----------+
| Category1   | countings |
+-------------+-----------+
| Electronics |        21 |
| Shoes       |        18 |
| Health      |        17 |
| Clothing    |        17 |
| Toys        |        13 |
+-------------+-----------+
5 rows in set (0.01 sec)

mysql> select * from Bottom2ByPAGE;
+-------+-----------+
| Pages | countings |
+-------+-----------+
|   104 |         3 |
|   102 |         4 |
+-------+-----------+
2 rows in set (0.00 sec)

mysql> select * from Top2ByCategory1;
+-------------+-----------+
| Category1   | countings |
+-------------+-----------+
| Electronics |         9 |
| Toys        |         6 |
+-------------+-----------+
```

```
mysql> select * from Top2ByIP;
+---------------+-----------+
| IP            | countings |
+---------------+-----------+
| 192.186.186.1 |         7 |
| 192.186.186.3 |         6 |
+---------------+-----------+
2 rows in set (0.00 sec)

mysql> select * from TotalPAGESCount;
+-------+-----------+
| PAGES | countings |
+-------+-----------+
|   101 |        21 |
|   103 |        18 |
|   102 |        17 |
|   104 |        17 |
|   105 |        13 |
+-------+-----------+
5 rows in set (0.00 sec)

mysql> select * from Bottom2ByIP;
+---------------+-----------+
| IP            | countings |
+---------------+-----------+
| 192.186.186.8 |         1 |
| 192.186.186.4 |         2 |
+---------------+-----------+
```

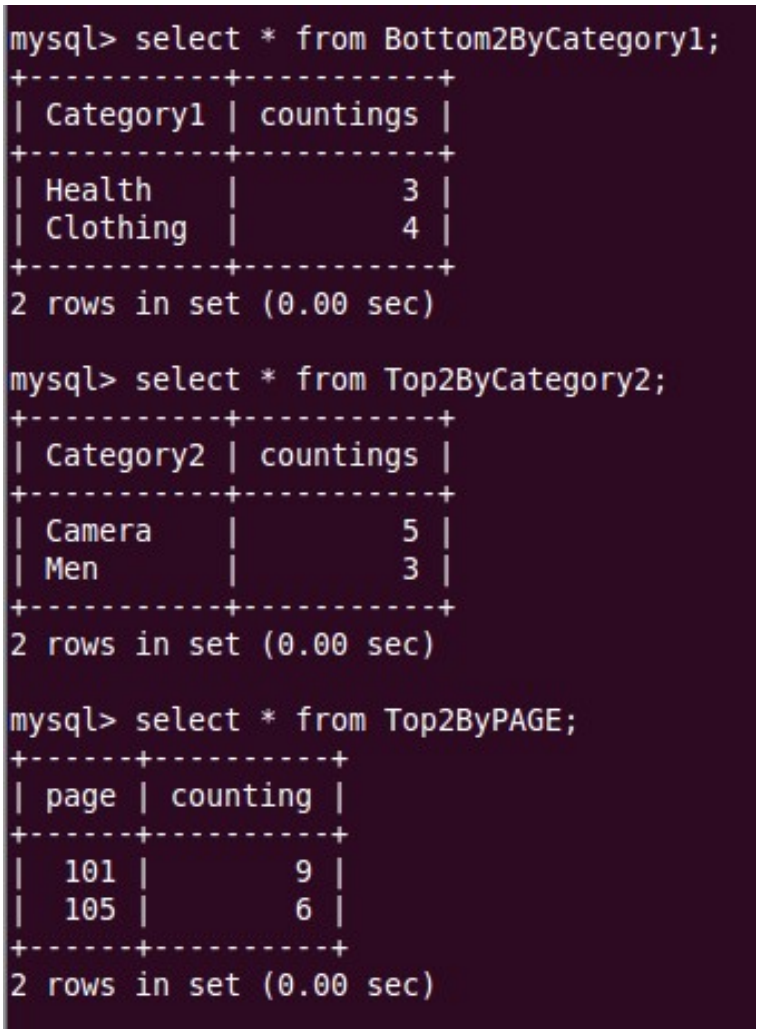
```
mysql> select * from Bottom2ByCategory2;
+-------------+-----------+
| Category2   | countings |
+-------------+-----------+
| Ellipticals |         1 |
| Jeans       |         1 |
+-------------+-----------+
2 rows in set (0.00 sec)

mysql> select * from StatusCodeCount;
+------------+-----------+
| StatusCode | countings |
+------------+-----------+
|        200 |        27 |
|        400 |        21 |
|        404 |        11 |
|        500 |        24 |
|       NULL |         0 |
+------------+-----------+
5 rows in set (0.00 sec)
```

```
mysql> select * from CountbyPageviewbyIndividualUser;
+---------------+-----------+
| IP            | countings |
+---------------+-----------+
| 192.186.186.1 |        15 |
| 192.186.186.2 |        13 |
| 192.186.186.3 |        13 |
| 192.186.186.4 |        12 |
| 192.186.186.5 |        12 |
| 192.186.186.6 |         8 |
| 192.186.186.7 |         9 |
| 192.186.186.8 |         4 |
+---------------+-----------+
8 rows in set (0.00 sec)

mysql> select * from PageTotalNumberOfUniqueViews;
+------+-----------+
| page | countings |
+------+-----------+
|  101 |         8 |
|  102 |         8 |
|  103 |         8 |
|  104 |         8 |
|  105 |         5 |
+------+-----------+
5 rows in set (0.00 sec)
```

```
mysql> select * from TotalCategory2Count;
+-------------+-----------+
| Category2   | countings |
+-------------+-----------+
| Camera      |         8 |
| Ellipticals |         8 |
| Men         |         7 |
| Mobile      |         6 |
| Kids        |         6 |
| Games       |         5 |
| Women       |         5 |
| Blazer      |         5 |
| Dolls       |         5 |
| Dresses     |         5 |
| Treadmills  |         5 |
| Stepper     |         4 |
| Laptops     |         4 |
| Jeans       |         4 |
| Outwear     |         3 |
| Vehicals    |         3 |
| Computers   |         3 |
+-------------+-----------+
17 rows in set (0.00 sec)
```



```
mysql> select * from Bottom2ByCategory1;
+-----------+-----------+
| Category1 | countings |
+-----------+-----------+
| Health    |         3 |
| Clothing  |         4 |
+-----------+-----------+
2 rows in set (0.00 sec)

mysql> select * from Top2ByCategory2;
+-----------+-----------+
| Category2 | countings |
+-----------+-----------+
| Camera    |         5 |
| Men       |         3 |
+-----------+-----------+
2 rows in set (0.00 sec)

mysql> select * from Top2ByPAGE;
+------+----------+
| page | counting |
+------+----------+
|  101 |        9 |
|  105 |        6 |
+------+----------+
2 rows in set (0.00 sec)
```

Tags

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About Bhavesh

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subhadeep110

12 January 2017 at 18:27

hi,

can you please tell me how you made the input data from a web server log. in hive or pig.

Senthil Prabu

Reply

3 February 2017 at 05:43

Hi Bhavesh,

Nice Explanations with codes, please share input files, it wud be great!!!!

Reply

Unknown

13 February 2017 at 09:02

Can u please share input files.
Email: prashant2892@hotmail.com

Thank You

Reply

sushma

22 April 2017 at 15:42

Hi
Can you please share input file.

Reply

harshit

25 October 2017 at 11:08

Hi ,
nice explanation can you please mail me input file
harshitkacker@gmail.com

Reply

gopinath678

17 May 2018 at 08:47

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