```
Logging initialized using configuration in file:/
etc/hive/2.3.4.0-3485/0/hive-log4j.properties
hive (default)>  SET hive.execution.engine=mr;
hive (default)> create database iaminusa19828041
              > ;
OK
Time taken: 1.072 seconds


hive (default)> use iaminusa19828041;
OK
Time taken: 0.029 seconds



hive (iaminusa19828041)> create table
tel_cdr_raw(session_id string,simcard_id
string,phone_number string,call_time
string,duration int,cell_id string, network_type
string, drop_reason string) row fo
rmat delimited fields terminated by ',' stored as
textfile;
OK
Time taken: 0.085 seconds
hive (iaminusa19828041)> LOAD data inpath '/user/
iaminusa19828041/simplecdr'   into table
tel_cdr_raw;
Loading data to table iaminusa19828041.tel_cdr_raw
Table iaminusa19828041.tel_cdr_raw stats:
[numFiles=1, totalSize=18171]
OK
Time taken: 0.326 seconds
```

```
hive (iaminusa19828041)> select * from tel_cdr_raw
limit 5;
OK
rnd-dcad1bbb-cd4c-4927-929d-94f6a929f061
SIM-00002       PHONE-00009     27/04/2015 13:35:11
17561   cell F  2       REASON 2
rnd-588ff3de-84b6-4903-a1de-e1cd2faca9a8
SIM-00010       PHONE-00004     27/04/2015 13:35:12
17361   cell A  1       REASON 8
rnd-ef5af2cd-51fa-46dd-80b4-c7c089ca67d3
SIM-00008       PHONE-00004     27/04/2015 13:35:13
7061    cell G  2       REASON 9
rnd-169de378-87b4-4c54-9315-7c1991bb1651
SIM-00006       PHONE-00010     27/04/2015 13:35:14
18361   cell A  1       REASON 4
rnd-683c335a-b2b8-4b35-8758-2bff7f1f31ad
SIM-00002       PHONE-00001     27/04/2015 13:35:16
15361   cell E  1       REASON 10
Time taken: 0.095 seconds, Fetched: 5 row(s)
hive (iaminusa19828041)>


hive (iaminusa19828041)> create table
tel_cdr_proc(session_id string,simcard_id
string,phone_number string,call_time
string,duration int,cell_id string, network_type
string, drop_reason string,call_d
rop_status string);
OK


hive (iaminusa19828041)> insert into tel_cdr_proc
```

```sql
                                  > select
                                  >
t2.session_id,t2.simcard_id,t2.phone_number,t2.call
_time,t2.duration,t2.cell_id,t2.network_type,t2.dro
p_reason,
                                  > CASE
                                  > WHEN previous_timestamp is
null then 'NA'
                                  > WHEN ((previous_timestamp)
+ previous_duration — (timestampx)) > 60 then 'NOT—
DROPPED'
                                  > WHEN ((previous_timestamp)
+ previous_duration — (timestampx)) < 60 then
'DROPPED'
                                  >  END as call_drop_status
                                  > FROM (
                                  > SELECT
                                  > t1.*,
                                  > LAG(call_time, 1) OVER
(PARTITION BY simcard_id, phone_number ORDER BY
timestampx ) as previous_callstarttime,
                                  > LAG(duration, 1) OVER
(PARTITION BY simcard_id, phone_number ORDER BY
timestampx ) as previous_duration,
                                  > LAG(drop_reason, 1) OVER
(PARTITION BY simcard_id, phone_number ORDER BY
timestampx ) as previous_dropreason,
                                  > LAG(timestampx, 1) OVER
(PARTITION BY simcard_id, phone_number ORDER BY
timestampx ) as previous_timestamp
                                  > FROM (
                                  > SELECT cdr.*,
unix_timestamp(call_time,'dd/MM/yyyy HH:mm:ss') as
timestampx
                                  > FROM tel_cdr_raw cdr
                                  > )t1
```

```
                              > )t2;
Query ID =
iaminusa19828041_20170729162949_cb689898-220c-4bd8-
8f07-98a1dfe77c54
Total jobs = 1
Launching Job 1 out of 1
Number of reduce tasks not specified. Estimated
from input data size: 1
In order to change the average load for a reducer
(in bytes):
  set hive.exec.reducers.bytes.per.reducer=<number>
In order to limit the maximum number of reducers:
  set hive.exec.reducers.max=<number>
In order to set a constant number of reducers:
  set mapreduce.job.reduces=<number>
Starting Job = job_1498404677707_6990, Tracking URL
= http://a.cloudxlab.com:8088/proxy/
application_1498404677707_6990/
Kill Command = /usr/hdp/2.3.4.0-3485/hadoop/bin/
hadoop job  -kill job_1498404677707_6990
Hadoop job information for Stage-1: number of
mappers: 1; number of reducers: 1
2017-07-29 16:29:56,370 Stage-1 map = 0%,   reduce =
0%
2017-07-29 16:30:02,684 Stage-1 map = 100%,   reduce
= 0%, Cumulative CPU 3.84 sec


Vhive (iaminusa19828041)> select * from
tel_cdr_proc limit 20;
OK
rnd-3057f491-bf60-49a7-955e-e348a7968236
SIM-00001       PHONE-00006      27/04/2015 13:35:32
461     cell F  2         REASON 7        NA
```

```
rnd-28870fcb-71df-416e-adad-c33109baf28e
SIM-00001       PHONE-00006     27/04/2015 13:35:50
7061    cell I  2       REASON 5        NOT-DROPPED
rnd-8def3194-84c2-4489-bc0b-4af10bef73ed
SIM-00001       PHONE-00007     27/04/2015 13:36:11
22661   cell B  2       REASON 2        NA
change-408339cb-8ca9-412d-95a3-a87d87a8c03f
SIM-00001       PHONE-00007     27/04/2015 13:37:20
238     cell B  1       REASON 10       NOT-DROPPED
change-408339cb-8ca9-412d-95a3-a87d87a8c03f
SIM-00001       PHONE-00007     27/04/2015 13:37:20
238     cell B  2       REASON 10       NOT-DROPPED
rnd-8c81b5b9-301f-41bf-907a-48a643e84e79
SIM-00001       PHONE-00008     27/04/2015 13:35:26
8561    cell D  1       REASON 7        NA
rnd-b43aa056-a4c6-47d1-aa6f-2f6ad68ba6ff
SIM-00001       PHONE-00008     27/04/2015 13:36:14
7861    cell F  2       REASON 2        NOT-DROPPED
rnd-f2354458-2551-4b49-8b54-2cc64a00749e
SIM-00001       PHONE-00009     27/04/2015 13:36:20
27361   cell G  1       REASON 9        NA
rnd-d1e6ea89-a7e6-44c6-88f0-e7d6f98edc55
SIM-00001       PHONE-00010     27/04/2015 13:35:24
16161   cell F  1       REASON 10       NA
drop-a00f8eea-5416-4aee-b6a1-e63c8724b352
SIM-00001-20    PHONE-00009-20  27/04/2015 13:36:47
2       cell H  1       REASON 4        NA
drop-a00f8eea-5416-4aee-b6a1-e63c8724b352
SIM-00001-20    PHONE-00009-20  27/04/2015 13:36:51
178     cell H  1       REASON 4        DROPPED
drop-76a06907-ed97-4dd2-9d90-244b14e4e762
SIM-00001-26    PHONE-00001-26  27/04/2015 13:36:54
0       cell B  2       REASON 6        NA
drop-76a06907-ed97-4dd2-9d90-244b14e4e762
SIM-00001-26    PHONE-00001-26  27/04/2015 13:36:54
64      cell B  2       REASON 6        DROPPED
```

```
drop-852dea68-9061-495e-a933-567cde4f8d3e
SIM-00001-9    PHONE-00003-9   27/04/2015 13:36:34
1       cell F   1       REASON 7        NA
drop-852dea68-9061-495e-a933-567cde4f8d3e
SIM-00001-9    PHONE-00003-9   27/04/2015 13:36:37
33      cell F   1       REASON 7        DROPPED
rnd-683c335a-b2b8-4b35-8758-2bff7f1f31ad
SIM-00002      PHONE-00001     27/04/2015 13:35:16
15361   cell E   1       REASON 10       NA
rnd-8c722bec-8765-41c5-a41f-c6c9cfb30c20
SIM-00002      PHONE-00002     27/04/2015 13:35:42
21061   cell C   2       REASON 4        NA
change-ac5cf3db-d243-4f99-8690-f7d48b8de888
SIM-00002      PHONE-00003     27/04/2015 13:37:24
288     cell E   1       REASON 9        NA
change-ac5cf3db-d243-4f99-8690-f7d48b8de888
SIM-00002      PHONE-00003     27/04/2015 13:37:24
288     cell C   2       REASON 9        NOT-DROPPED
rnd-755150e7-69e5-44f3-b925-67469ef087a6
SIM-00002      PHONE-00005     27/04/2015 13:36:17
11761   cell B   1       REASON 3        NA
Time taken: 0.08 seconds, Fetched: 20 row(s)
```

```
hive (iaminusa19828041)> select
cell_id,drop_reason,count(*) as COT from
tel_cdr_proc where call_drop_status = 'DROPPED'
group by cell_id,drop_
reason order by COT desc limit 10;
Query ID =
iaminusa19828041_20170729163649_e9f12fce-57dc-4e22-
bf3b-52693c7b3ff0
Total jobs = 2
Launching Job 1 out of 2
Number of reduce tasks not specified. Estimated
from input data size: 1
```

In order to change the average load for a reducer
(in bytes):
  set hive.exec.reducers.bytes.per.reducer=<number>
In order to limit the maximum number of reducers:
  set hive.exec.reducers.max=<number>
In order to set a constant number of reducers:
  set mapreduce.job.reduces=<number>
Starting Job = job_1498404677707_6992, Tracking URL
= http://a.cloudxlab.com:8088/proxy/
application_1498404677707_6992/
Kill Command = /usr/hdp/2.3.4.0-3485/hadoop/bin/
hadoop job -kill job_1498404677707_6992
Hadoop job information for Stage-1: number of

mappers: 1; number of reducers: 1
2017-07-29 16:36:55,715 Stage-1 map = 0%,   reduce =
0%
2017-07-29 16:37:01,894 Stage-1 map = 100%,   reduce
= 0%, Cumulative CPU 3.91 sec