# HIVE\_MINI\_PROJECT\_1

Download Dataset 1 - https://drive.google.com/file/d/1WrG-9qv6atP-W3P -gYln1hHyFKRKMHP/view

Download Dataset 2 - https://drive.google.com/file/d/1-JIPCZ34dyN6k9CqJa-Y8yxIGq6vTVXU/view

### 1. Create a schema based on the given dataset

```
[cloudera@quickstart ~]$ hdfs dfs -mkdir Agent_Details
[cloudera@quickstart ~]$ hdfs dfs -put /home/cloudera/Hive-Mini-Proj-1/AgentLogingReport.csv Agent_Details/
[cloudera@quickstart ~]$ hdfs dfs -put /home/cloudera/Hive-Mini-Proj-1/AgentPerformance.csv Agent_Details/
[cloudera@quickstart ~]$ hdfs dfs -ls Agent Details
Found 2 items
-rw-r--r-- 1 cloudera cloudera
-rw-r--r-- 1 cloudera cloudera
                                                55351 2023-03-21 03:18 Agent_Details/AgentLogingReport.csv
                                               109853 2023-03-21 03:22 Agent_Details/AgentPerformance.csv
Hive> Create table AgentLogingReport (
sr_no int,
Agent string,
Date date,
Login string,
Logout string,
Duration string
row format delimited
fields terminated by ','
tblproperties ("skip.header.line.count" = "1");
Hive> Create table AgentPerformance
(
sr_no int,
Date date,
Agent_Name string,
Total_chats int,
Avg_Response_Time string,
Avg_Resolution_Time string,
Avg_Rating float,
Total_Feedback int
)
row format delimited
fields terminated by ','
tblproperties ("skip.header.line.count" = "1");
```

```
[cloudera@guickstart ~1$ hive
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
WARNING: Hive CLI is deprecated and migration to Beeline is recommended. hive> drop database agent_details;
FAILED: Execution Error, return code 1 from org.apache.hadoop.hive.ql.exec.DDLTask. InvalidOperationException(messag e:Database agent_details is not empty. One or more tables exist.) hive> drop database if exists agent_details cascade;
Time taken: 16.431 seconds
hive> create database agent details;
Time taken: 1.245 seconds
hive> use agent_details;
Time taken: 0.3 seconds
hive> create table agent_logging
        s_no int,
     > agent string,
     > date date,
> login_time string,
> logout_time string,
     > duration string
     > row format delimited
        fields terminated by
     > tblproperties("skip.header.line.count"="1");
Time taken: 1.998 seconds
hive> create table agent_performances
     > s no int.
     > date date,
     a agent name string,
> total_chats int,
> average_response_time string,
> average_resolution_time string,
> average_rating_float,
     > total feedback int
        row format delimited
     > fields terminated by ','
> tblproperties("skip.header.line.count"="1");
Time taken: 0.985 seconds
```

## 2. Dump the data inside the hdfs in the given schema location.

load data local inpath'Agent\_Details/AgentLogingReport.csv' into table agent\_logging; load data local inpath'Agent\_Details/AgentPerformance.csv' into table agent\_performance; select \* from agent\_logging limit 3; select \* from agent\_performances limit 3;

```
hive> load data inpath 'Agent Details/AgentLogingReport.csv' into table agent logging;
Loading data to table agent details.agent logging
Table agent details.agent logging stats: [numFiles=1, totalSize=53908]
0K
Time taken: 3.13 seconds
hive> load data inpath 'Agent Details/AgentPerformance.csv' into table agent performances;
Loading data to table agent details.agent performances
Table agent details.agent performances stats: [numFiles=1, totalSize=109011]
Time taken: 3.643 seconds
hive> select * from agent logging limit 3;
0K
1
        Shivananda Sonwane
                               2022-07-30
                                             15:35:29
                                                           17:39:39
                                                                             2:04:10
        Khushboo Priya 2022-07-30
                                   15:06:59 15:07:16 0:00:17
2
                       2022-07-30
        Nandani Gupta
                                      15:04:24
                                                      17:31:07
                                                                     2:26:42
Time taken: 4.037 seconds, Fetched: 3 row(s)
hive> select * from agent performances limit 3;
0K
        2022-07-30
1
                       Prerna Singh
                                              0:00:38 0:04:20 4.11
                                                                     9
                                      11
2
        2022-07-30
                       Nandani Gupta 11
                                              0:01:15 0:28:25 3.14
3
        2022-07-30
                       Ameya Jain
                                      14
                                              0:00:30 0:11:36 4.55
                                                                     11
Time taken: 0.796 seconds, Fetched: 3 row(s)
```

### 3. List of all agents' names.

## hive> select distinct agent from agent\_logging;

```
hive> select distinct agent from agent logging;
Query ID = cloudera_20230321051919_9c512323-2899-4fe8-96f9-139bla4beceb
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_1679392695123_0001, Tracking URL = http://quickstart.cloudera:8088/proxy/application_167939269512
Joseph Schmidt = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0001
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:22:05,947 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:22:43,998 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.26 sec
2023-03-21 05:22:58,560 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.96 sec
MapReduce Total cumulative CPU time: 3 seconds 960 msec
Ended Job = job 1679392695123_0001
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.96 sec HDFS Read: 61634 HDFS Write: 638 SUCCESS
Total MapReduce CPU Time Spent: 3 seconds 960 msec
Aditya Shinde
Aditya_iot
Amersh
Ameya Jain
Ankitjha
Anurag Tiwari
Aravind
Ayushi Mishra
Bharath
Boktiar Ahmed Bappy
Chaitra K Hiremath
Deepranjan Gupta
Dibyanshu
Harikrishnan Shaji
Hrisikesh Neogi
Hyder Abbas
Ineuron Intelligence
Ishawant Kumar
Jawala Prakash
Jaydeep Dixit
Khushboo Priya
Madhulika G
                                                                                                                         2 Items in Trash
Mahesh Sarade
```

## hive> select distinct agent\_name from agent\_performance;

```
hive> select distinct agent_name from agent_performances;

Query ID = cloudera_20230321052626_569361eb-ced1-4b3f-8770-22e9cd3920e3

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_1679392695123_0002, Tracking URL = http://quickstart.cloudera:8088/proxy/application_167939269512
3_0002/

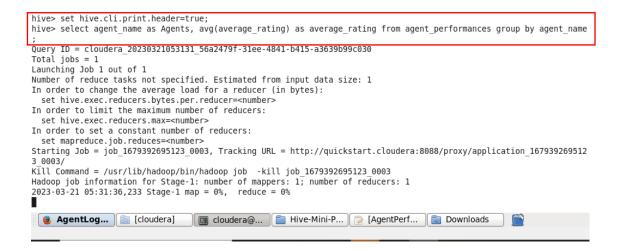
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0002
```

```
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job 1679392695123_0002
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:26:23,061 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:26:42,479 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.16 sec 2023-03-21 05:26:59,518 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.28 seconds.
                                                reduce = 100%, Cumulative CPU 4.28 sec
MapReduce Total cumulative CPU time: 4 seconds 280 msec
Ended Job = job_1679392695123_0002
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.28 sec HDFS Read: 117459 HDFS Write: 840 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 280 msec
Abhishek
Aditya
Aditya Shinde
Aditya_iot
Amersh
Ameya Jain
Anirudh
Ankit Sharma
Ankitjha
Anurag Tiwari
Aravind
Ashad Nasim
Ashish
Ayushi Mishra
Bharath
Boktiar Ahmed Bappy
Chaitra K Hiremath
Deepranjan Gupta
Dibvanshu
Harikrishnan Shaji
Hitesh Choudhary
Hrisikesh Neogi
Hyder Abbas
Ineuron Intelligence
Ishawant Kumar
Jawala Prakash
Javant Kumar
Javdeep Dixit
Khushboo Priya
Madhulika G
Mahak
Mahesh Sarade
Maitry
Maneesh
Manjunatha A
Mithun S
 AgentLog... [cloudera]
                                   📵 cloudera@... 📋 Hive-Mini-P... 🍞 [AgentPerf... 📵 Downloads
```

## 4. Find out agent average rating.

hive> set hive.cli.print.header = true;

hive> select agent\_name as agent, avg(average\_rating) as average\_rating from agent\_performance group by agent\_name;



```
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0003
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:31:36,233 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:31:51,426 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.94 sec 2023-03-21 05:32:09,479 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.02 sec MapReduce Total cumulative CPU time: 4 seconds 20 msec Ended Job = job_1679392695123_0003
MapReduce Jobs_Jaunched:
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.02 sec HDFS Read: 118707 HDFS Write: 1877 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 20 msec
0K
agents
agents average_rating
Abhishek 0.0
Aditya 0.0
Aditya Shinde
Aditya_iot
Amersh 0.0
Ameya Jain
                  2.3453333377838135
                  2.21966667175293
Anirudh 0.6449999968210857
Aravind 2.1813333511352537
Ashad Nasim 0.16666666
                  0.16666666666666666
Ashish 0.0
Ashish u.u
Ayushi Mishra 3.481999969482422
Bharath 2.9836666584014893
Boktiar Ahmed Bappy 3.567999982833862
0.8646666606267294
0.8646666606267294
Chaitra K Hiremus.
Deepranjan Gupta
                           0.864666666267294
                           2.886666695276896
Harikrishnan Shaji 2.639666652
Hitesh Choudhary 0.0
Hrisikesh Neogi 3.1363333304723104
                         2.6396666526794434
Hyder Abbas 0.0
Ineuron Intelligence
Jayant Kumar 3.543333347638448
Jawala Prakash 3.472000018755595
Jayant Kumar 1.068666664759318
Jawala rianasi
Jayant Kumar 1.068666664759318
Jaydeep Dixit 3.1670000314712525
Khushboo Priya 3.70366663169861
2498666520436605
Madhulika G
                  3.4986666520436605
         0.1
Mahak
Mahesh Sarade
                 2.4003333330154417
Maitry 2.9270000139872234
Maneesh 0.1666666666666666
Manjunatha A 3.59466668
Mithun S 2.359000023
Mukesh 0.3096666653951009
                3.5946666876475017
2.359000023206075
 📵 AgentLog... 🔝 [cloudera] 📵 cloudera@... 📋 Hive-Mini-P... 🍞 [AgentPerf... 📵 Downloads 🖺
Mukesh Rao
                             0.25566666523615517
Muskan Garg
                              0.712333329518636
Nandani Gupta
                              2.9236666679382326
Nishtha Jain
                             3.282333334287008
Nitin M 0.0
Prabir Kumar Satapathy 2.5103333314259846
Prateek
                iot
                             2.4383333206176756
Prerna Singh
                              3.2326666434605915
Rishav Dash
                             1.4268333355585734
              0.0
Rohan
Saif Khan
                              Θ.Θ
Saikumarreddy N 1.9803333441416422
Samprit 0.0
Sandipan Saha
                              0.4289999961853027
Sanjeev Kumar
                             3.3830000241597493
Sanjeevan 0.0
Saurabh Shukla 0.5556666692097981
Shiva Srivastava
                                            0.9446666717529297
                       2.841333341598511
Shivan K
                              0.1416666666666666
                                            4.232666659355163
Shivananda Sonwane
Shubham Sharma 3.2253333568572997
                                            1.2599999984105428
Sowmiya Sivakumar
              0.0
2.4236666917800904
Swati
Tarun
               0.05
Uday Mishra
                              Θ.Θ
Vasanth P
                              Θ.Θ
              0.5006666660308838
Vivek
Wasim
              2.400000015894572
Zeeshan 2.286999988555908
Time taken: 49.906 seconds, Fetched: 70 row(s)
hive>
 AgentLog... [a] [cloudera]
                                                             🔲 cloudera@..
```

# 5. Total working days for each agent

hive> select agent\_name as agent, count(distinct date) as number\_of\_working\_days from agent\_performance group by agent\_name;

```
hive> select agent_name as agents, count(distinct date) as no_of_working_days from agent_performances group by agent_name;
 Query ID = cloudera_20230321053/3/_450abfb5-3aa0-4/20-b/a3-aeb8e1836928
 Total iobs = 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_1679392695123_0004, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679392695123_0004/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0004
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0004
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:37:19,451 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:37:38,109 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.36 sec
2023-03-21 05:37:53,985 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.4 sec
MapReduce Total cumulative CPU time: 4 seconds 400 msec
Ended Job = job_1679392695123_0004
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.4 sec HDFS Read: 118393 HDFS Write: 1050 SUCCESS
TOTAL MapReduce CPU Time Spent: 4 seconds 400 msec
OK
 Abhishek
 Aditya 30
Aditya Shinde
 Aditya_iot
Amersh 30
Ameya Jain
                             30
                             30
 Anirudh 30
Ankit Sharma
                             30
 Ankitjha
 Anurag Tiwari
Aravind 30
 Ashad Nasim
 Ashish 30
Ayushi Mishra
 Bharath 30
Boktiar Ahmed Bappy
Chaitra K Hiremath
 Deepranjan Gupta
Dibyanshu 3
 Harikrishnan Shaji
Hitesh Choudhary
Hrisikesh Neogi 30
 Hyder Abbas
 Ineuron Intelligence
                                            30
Ineuron Intelligenc
Ishawant Kumar 30
Jawala Prakash 30
Jayant Kumar 30
Jaydeep Dixit 30
 Khushboo Priya
Madhulika G
                             30
30
   AgentLog...
[a] Cloudera
[a] Cloudera
[a] Cloudera
[a] Downloads
```

```
Madhulika G
                30
Mahak
       30
Mahesh Sarade
                30
Maitry 30
Maneesh 30
Manjunatha A
                30
Mithun S
                30
       30
Mukesh
Mukesh Rao
                30
Muskan Garq
                30
Nandani Gupta
                30
Nishtha Jain
                30
Nitin M 30
Prabir Kumar Satapathy 30
Prateek
        iot
Prerna Singh
Rishav Dash
Rohan
Saif Khan
Saikumarreddy N 30
Samprit 30
Sandipan Saha
                30
Sanjeev Kumar
                30
Sanjeevan
                30
Saurabh Shukla 30
Shiva Srivastava
                        30
                30
Shivan K
                30
Shivan S
Shivananda Sonwane
                        30
Shubham Sharma 30
Sowmiya Sivakumar
                        30
       30
Spuri
Sudhanshu Kumar 30
Suraj S Bilgi
Swati
Tarun
        30
Uday Mishra
                30
Vasanth P
Vivek
       30
Wasim
        30
Zeeshan 30
Time taken: 56.25 seconds, Fetched: 70 row(s)
hive>
```

### 6. Total query that each agent has taken

hive> select agent\_name as agent, sum(total\_chats) as queries\_taken from agent\_performance group by agent\_name;

```
hive> select agent name as agents, sum(total chats) as total queries taken from agent performances group by agent name;

Query ID = cloudera_20230321054242_lb5603aa-fec5-4dd8-8d40-8282bd1d2f6c

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_1679392695123_0005, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679392695123_0005/

Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0005
```

```
Mithun S
               503
Mukesh 19
Mukesh Rao
Muskan Garg
               56
Nandani Gupta
               560
Nishtha Jain
               373
Nitin M 0
Prabir Kumar Satapathy 299
Prateek iot
              190
Prerna Singh
               401
Rishav Dash
               409
Rohan 0
Saif Khan
Saikumarreddy N 364
Samprit 1
               30
Sandipan Saha
Sanjeev Kumar
               507
Sanjeevan
Saurabh Shukla 16
Shiva Srivastava
                       53
Shivan K
             357
Shivan S
               7
Shivananda Sonwane
                       441
Shubham Sharma 510
Sowmiya Sivakumar
                       206
Spuri 0
Sudhanshu Kumar 2
Suraj S Bilgi
Swati 524
Tarun
       22
Uday Mishra
Vasanth P
               0
Vivek 44
      433
Wasim
Zeeshan 542
Time taken: 50.069 seconds, Fetched: 70 row(s)
hive>
AgentLog... Significant Section (Section 1)
                                🔳 cloudera@...
```

# 7. Total Feedback that each agent has received

hive> select agent\_name as agent, sum(total\_feedback) as feedbacks\_received from agent\_performance group by agent\_name;

```
hive> select agent_name as agents, sum(total_feedback) as total_feedbacks from agent_performances group by agent_name;
Query ID = cloudera_20230321054747_b4945159-9723-49eb-b034-028ca774f335
Total jobs = 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>
set mapreduce.job.reduces=<number>
Starting Job = job_1679392695123_0006, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679392695123_0006/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0006
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:47:19,158 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:47:32,644 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.77 sec
2023-03-21 05:47:32,645 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.54 sec
MapReduce Total cumulative CPU time: 3 seconds 540 msec
Ended Job = job_1679392695123_0006
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.54 sec HDFS Read: 118229 HDFS Write: 1057 SUCCESS
Total MapReduce CPU Time Spent: 3 seconds 540 msec
  Total MapReduce CPU Time Spent: 3 seconds 540 msec
 0K
  Abhishek
 Aditya 0
  Aditya Shinde
 Aditya_iot
Amersh 0
                                   131
 Ameya Jain
Anirudh 39
                                   228
 Ankit Sharma
                                   0
 Ankitjha
 Anurag Tiwari
Aravind 233
                                   3
                                   9
 Ashad Nasim
 Ashish 0
 Ayushi Mishra
Bharath 247
                                  329
 Boktiar Ahmed Bappy
Chaitra K Hiremath
                                                    311
 Deepranjan Gupta
                                                    312
 Dibyanshu
   📵 AgentLog... 🔊 [cloudera] 📵 cloudera@... 🖺 Hive-Mini-P... 🍞 [AgentPerf... 🔯 Downloads
 Hrisikesh Neogi 367
Hyder Abbas 0
Ineuron Intelligence
Ishawant Kumar 202
Jawala Prakash 250
Jayant Kumar 70
                                                                     Θ
 Jaydeep Dixit
Khushboo Priya
Madhulika G
                                               305
                                              281
  Mahak
 Mahesh Sarade
Maitry 347
Maneesh 3
 Manjunatha A
Mithun S
                                              364
                       17
 Mukesh
 Mukesh Rao
Muskan Garg
                                              37
```

```
Hyder Abbas 0
Ineuron Intelligence 0
Ishawant Kumar 202
Jawala Prakash 250
Jayant Kumar 70
Jaydeep Dixit 305
Khushboo Priya 289
Madhulika G 281
Mahak 5
Mahesh Sarade 216
Maitry 347
Maneesh 3
Manjunatha A 254
Mithun S 364
Mukesh 17
Mukesh Rao 5
Muskan Garg 37
Nandani Gupta 308
Nishtha Jain 257
Nitin M 0
Prabir Kumar Satapathy 222
Prateek iot 107
Prerna Singh 235
Rishav Dash 264
Rohan 0
Saif Khan 0
Saikumarreddy N 290
Samprit 0
Sandipan Saha 18
Sanjeev Kumar 311
Sanjeevan 0
Saurabh Shukla 8
Shiva Srivastava 46
Shivan K 243
Shivan S 4
Shivan S 5
Swati 302
Tarun 6
Uday Mishra 0
Vasanth P 0
Vivek 20
Wasim 284
Zeeshan 335
Time taken: 48.228 seconds, Fetched: 70 row(s)
hive▶ ■
```

# 8. Agent name who have average rating between 3.5 to 4

hive> select agent\_name as agent, avg(average\_rating) as average\_rating from agent\_performance group by agent name having average rating between 3.5 and 4;

```
hive> select agent_name as agents, avg(average_rating) as average_rating from agent_performances group by agent_name h
aving average_rating between 3.5 and 4
Query ID = cloudera_20230321055252_ffd11884-3fa2-42ce-a2d4-6242ab78ae22
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 1679392695123 0007, Tracking URL = http://quickstart.cloudera:8088/proxy/application 1679392695123
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0007
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:52:27,946 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:52:42,944 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.76 sec
2023-03-21 05:52:59,935 Stage-1 map = 100%,
                                               reduce = 100%, Cumulative CPU 4.17 sec
MapReduce Total cumulative CPU time: 4 seconds 170 msec
Ended Job = job 1679392695123 0007
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.17 sec HDFS Read: 119332 HDFS Write: 136 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 170 msec
Boktiar Ahmed Bappy
                         3.567999982833862
Ishawant Kumar 3.543333347638448
Khushboo Priya 3.703666663169861
                3.5946666876475017
Manjunatha A
Time taken: 48.381 seconds, Fetched: 4 row(s)
hive>
```

## 9. Agent name who have rating less than 3.5

hive> select agent\_name as agent, avg(average\_rating) as average\_rating from agent\_performance group by agent\_name having average\_rating < 3.5;

```
hive> select agent_name as agents, avg(average_rating) as average_rating from agent_performances group by agent_name having average_rating < 3.5;

Query ID = cloudera_vezauzelusssss_stc/dres-u454-46c8-9et/-broupusacipy
  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 1679392695123_0008, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679392695123_0008/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0008
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 05:55:45,309 Stage-1 map = 0%, reduce = 0%
2023-03-21 05:55:55,648 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.54 sec
2023-03-21 05:55:51,1941 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.65 sec
MapReduce Total cumulative CPU time: 3 seconds 650 msec
Ended Job = job_1679392695123_0008
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.65 sec HDFS Read: 119135 HDFS Write: 1704 SUCCESS
  In order to limit the maximum number of reducers:
  Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.65 sec HDFS Read: 119135 HDFS Write: 1704 SUCCESS Total MapReduce CPU Time Spent: 3 seconds 650 msec
 OK
Abhishek
                                          0.0
  Aditya 0.0
Aditya Shinde 1.8003333409627278
  Aditya_iot
Amersh 0.0
Ameya Jain
                                          2.3453333377838135
 Ameya Jain 2.21966667175293
Anirudh 0.6449999986210857
Ankit Sharma 0.0
Ankitjha
 Bharath 2.983666584014893
Chaitra K Hiremath 0.8
Deepranjan Gupta 2.8
Dibyanshu 0.0
                                                                0.8646666606267294
2.886666695276896
  Harikrishnan Shaji
                                                                2.6396666526794434
 Harikishindi Shadji 2.05900005.
Hitesh Choudhary 0.0
Hrisikesh Neogi 3.13633333304723104
Hyder Abbas 0.0
Ineuron Intelligence 0.0
Jawala Prakash 3.472000018755595
Jayant Kumar 1.068666664759318
```

```
Jayant Kumar
               1.068666664759318
Jaydeep Dixit
                3.1670000314712525
Madhulika G
                3.4986666520436605
Mahak
       0.1
Mahesh Sarade
              2.4003333330154417
Maitry 2.9270000139872234
Maneesh 0.1666666666666666
                2.359000023206075
Mithun S
Mukesh 0.3096666653951009
Mukesh Rao
              0.25566666523615517
Muskan Garg
                0.712333329518636
Nandani Gupta
                2.9236666679382326
               3.282333334287008
Nishtha Jain
Nitin M 0.0
Prabir Kumar Satapathy 2.5103333314259846
Prateek iot
                2.4383333206176756
Prerna Singh
                3.2326666434605915
Rishav Dash
               1.4268333355585734
Rohan
       Θ.Θ
Saif Khan
                0.0
Saikumarreddy N 1.9803333441416422
Samprit 0.0
Sandipan Saha 0.4289999961853027
Sanjeev Kumar
               3.3830000241597493
Sanjeevan
                0.0
Saurabh Shukla 0.5556666692097981
Shiva Srivastava
                        0.9446666717529297
               2.841333341598511
Shivan K
Shivan S
                0.14166666666666666
Shubham Sharma 3.2253333568572997
                        1.2599999984105428
Sowmiya Sivakumar
Spuri
       0.0
Sudhanshu Kumar 0.3333333333333333
Suraj S Bilgi 0.31200000445048015
Swati
        2.4236666917800904
Tarun
        0.05
Uday Mishra
                Θ.Θ
Vasanth P
                0.0
       0.5006666660308838
Vivek
        2.400000015894572
Wasim
Zeeshan 2.286999988555908
Time taken: 40.94 seconds, Fetched: 65 row(s)
hive>
```

## 10. Agent name who have rating more than 4.5

hive> select agent\_name as agent, avg(average\_rating) as average\_rating from agent\_performance group by agent\_name having average\_rating > 4.5;

```
hive> select agent name as agents, avg(average rating) as average rating from agent performances group by agent name having average_rating > 4.5;

Query ID = cloudera_20230321061616_2df6830a-5695-4275-8077-3f96e0b4c8e4

Total jobs = 1

Launching Job l 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=enumber>

In order to limit the maximum number of reducers:
    set hive.exec.reducers.max=enumber>

In order to set a constant number of reducers:
    set a constant number of reducers:
    set apreduce.job.reduces=enumber>

Starting Job = job_1679392695123_0010, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679392695123_0010/

Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679392695123_0010

Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-21 06:16:58,070 Stage-1 map = 0%, reduce = 0%,
2023-03-21 06:17:1,741 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.85 sec
2023-03-21 06:17:29,576 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.93 sec

MapReduce Total cumulative CPU time: 3 seconds 930 msec
Ended Job = job_1679392695123_0010

MapReduce Jobs Launched:

Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.93 sec HDFS Read: 119141 HDFS Write: 0 SUCCESS

Total MapReduce CPU Time Spent: 3 seconds 930 msec

Image Time taken: 44.354 seconds

hive>
```

## 11. How many feedback agents have received more than 4.5 average

hive> select count(\*) from(select agent\_name as agent, avg(total\_feedback) as average\_feedback from agent performance group by agent name having average feedback > 4.5)t;

```
hive> select agent name, count(total feedback) as total feedback from agent performances where average rating > 4.5 group by agent name order by total feedback desc; Query ID = cloudera_20230322022727_0101a5ed-4b09-4ddc-ba2f-634924b572d5
 Query ID = cloudera_20239322022/2/_0101a5ed-4009-400C-DaZT-63492405/205
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:
In order to set a constant number of reducers:
set mapreduce.job.reduces=cnumber>
set mapreduce.job.reduces=cnumber>
Starting Job = job_1679467492549_0007, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0007/
Kill Command = /usr/lib/hadoop/bin/hadoop job - kill job_1679467492549_0007
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-22 02:27:46,119 Stage-1 map = 0%, reduce = 0%
2023-03-22 02:27:56,481 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.75 sec
2023-03-22 02:28:07,391 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.1 sec
MapReduce Total cumulative CPU time: 3 seconds 100 msec
 Ended Job = job 1679467492549_0007
Launching Job 2 out of 2
Number of reduce tasks determined at compile time: 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 1679467492549 0008, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0008/
Kill Command = /usr/lib/hadoop/bin/hadoop job - kill job_1679467492549_0008
Haddoop job information for Stage-2: number of mappers: 1; number of reducers: 1
2073.08.72 07.78.19 079 Stage-2 man = 0% reduce = 0% reduce = 0.0%
 Total MapReduce CPU Time Spent: 5 seconds 810
 Shivananda Sonwane
                                                                                                 17
 Bharath 17
Khushboo Priya
 Manjunatha A
                                                                 13
Manjunatha A 13
Jaydeep Dixit 13
Ishawant Kumar 12
Shubham Sharma 12
Aravind 11
Sanjeev Kumar 11
Hrisikesh Neogi 11
Wasim 10
 Wasim 10
Prerna Singh
Prateek _iot
Prateek iot 9
Shivan K 9
Ayushi Mishra 8
Ameya Jain 8
Boktiar Ahmed Bappy
Saikumarreddy N 8
 Madhulika G
Swati 7
Nandani Gupta 7
Harikrishnan Shaji
Harikrishnan Shaji
Deepranjan Gupta
Aditya Shinde 7
Maitry 7
Aditya_iot 6
Nishtha Jain 6
Prabir Kumar Satapathy
Mithun S 5
Jawala Prakash 5
Mahesh Sarade 4
Zeeshan 3
Rishay Dash 3
 Rishav Dash
Mukesh 2
                                                               3
 Muskan Garg 2
Chaitra K Hiremath
Saurabh Shukla 2
                                                                                                2
 Javant Kumar
 Sudhanshu Kumar :
Shiva Srivastava
 Vivek
 Sowmiya Sivakumar
Mukesh Rao 1
  Ankitjha
 Sandipan Saha
 Anirudh 1
Suraj S Bilgi 1
Time taken: 65.305 seconds, Fetched: 47 row(s)
```

## 12. average weekly response time for each agent

hive> select agent, avg(weekly\_response\_time\_in\_sec) as avg\_weekly\_response\_time\_in\_sec from (select week, agent, sum((time[0]\*3600+time[1]\*60+time[2])) as weekly\_response\_time\_in\_sec

from(select agent\_name as agent, weekofyear(date) as week, split(average\_response\_time,':') as time from agent\_performance) t group by agent, week)s group by agent;

```
hive> select s.agent name, avg(col1[0]*3600+col1[1]*60+substr(col1[2],1,2))/3600 from(select agent name, split(average resp
onse time,':') as coll from agent performances)s group by s.agent name;
Query ID = cloudera_0230322065656_412092d7-a057-4e38-8985-5b5963782fbf
Total jobs = 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_1679467492549_0013, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0013/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0013
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-22 06:56:38,591 Stage-1 map = 0%, reduce = 0%
2023-03-22 06:56:49,536 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.02 sec 2023-03-22 06:57:01,653 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 3.94 sec
MapReduce Total cumulative CPU time: 3 seconds 940 msec
Ended Job = job_1679467492549_0013
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1
                                    Cumulative CPU: 3.94 sec HDFS Read: 121895 HDFS Write: 1964 SUCCESS
 Total MapReduce CPU Time Spent: 3 seconds 940 msec
0K
Abhishek
Aditya 0.0
Aditya Shinde
                 0.00825925925925926
Aditya_iot
Amersh 0.0
                 0.009435185185185185
Ameya Jain
                 0.00587037037037037
Anirudh 0.006046296296296
Ankit Sharma
                 0.0
                 0.0012314814814814816
Ankitjha
Anurag Tiwari
                 0.0023425925925925927
Aravind 0.005935185185185186
Ashad Nasim
                 0.01073148148148148
Hrisikesh Neogi 0.0140277777777778
Hyder Abbas 0.0
Ineuron Intelligence 0.0
Ishawant Kumar 0.013925925925925925
Jawala Prakash 0.026175925925925925
Jayant Kumar 0.005120370370370371
 Jaydeep Dixit
                               0.012333333333333333
 Khushboo Priya 0.017027777777
                               0.018453703703703705
Madhulika G
               Θ.Θ
Mahesh Sarade
                               0.012898148148148146
Maitry 0.017731481481481483
Maneesh 0.00125
Manjunatha A
                               0.010046296296296296
Nandani Gupta 0.0166
Nishtha Jain 0.0168
Nitin M 0.0
Prabir Kumar Satapathy
                            0.01662902902902
0.016888888888888888
                                              0.0105555555555556
                               0.00625
0.01324074074074074
Prateek _iot
Prerna Singh
Rishav Dash
                               0.008421296296296297
               0.0
Rohan
 Saif Khan 0.0
Saikumarreddy N 0.006990740740740741
Samprit 0.0
Sandipan Saha
Sanjeev Kumar
                               0.00163888888888888
                               0.0142222222222223
0.0
Sanjeev Kumar 0.0142222222222223
Sanjeevan 0.0
Saurabh Shukla 9.7222222222222E-4
Shiva Srivastava 0.0027777777777778
Shivan K 0.0133055555555555
Shivan_S 6.759259259259258E-4
 Shivan_S 6.759259259259258E-4
Shivananda Sonwane 0.0155555555
                              Shubham Sharma 0
Sowmiya Sivakumar
Uday Mishra
Vasanth P
                               Θ.Θ
                                    seconds, Fetched: 70 row(s)
[Oloudera Live : Welco...
Cloudera@quickstart
```

# 13. average weekly resolution time for each agents

hive> select agent, avg(weekly\_resolution\_time\_in\_sec) as avg\_weekly\_resolution\_time\_in\_sec from (select week, agent, sum((time[0]\*3600+time[1]\*60+time[2])) as weekly\_resolution\_time\_in\_sec from(select agent\_name as agent, weekofyear(date) as week, split(average\_resolution\_time,':') as time from agent\_performance) t group by agent, week)s group by agent;

```
hive> select s.agent_name, avg(col1[0]*3600+col1[1]*60+substr(col1[2],1,2))/3600 from(select agent_name, split(average_reso
lution time,':') as coll from agent performances)s group by s.agent nam
Query ID = cloudera_20230322072424_d9393971-dbad-424d-aafe-f0387c1f2312
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.iob.reduces=<number>
Starting Job = job_1679467492549_0021, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0021/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0021
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
Hadoop job information for Stage-1: number of mappers. 1, number 2023-03-22 07:24:51,829 Stage-1 map = 0%, reduce = 0% 2023-03-22 07:25:03,375 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.09 sec 2023-03-22 07:25:15,388 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.18 sec
2023-03-22 07:25:15,388 Stage-1 map = 100%, reduce = 1
MapReduce Total cumulative CPU time: 4 seconds 180 msec
Ended Job = job_1679467492549_0021
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1
                                            Cumulative CPU: 4.18 sec HDFS Read: 121895 HDFS Write: 1995 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 180 msec
Abhishek
                    0.0
Aditya 0.0
Aditya Shinde
                   0.17239814814814813
Aditya_iot
Amersh 0.0
                    0.16369444444444442
Ameya Jain
                     0.09125
Anirudh 0.05151851851851852
Ankit Sharma
                   0.0
                    0.01512962962962963
Ankitjha
Anurag Tiwari 0.020537037
Aravind 0.14876851851851852
                    0.020537037037037038
                    0.005814814814814815
Ashad Nasim
Ashish 0.0
Ayushi Mishra
                    0.2562777777777777
Bharath 0.1798888888888888
Boktiar Ahmed Bappy
                               0.2843981481481482
Chaitra K Hiremath
                               0.024712962962962964
                               0.3475462962962963
Deepranjan Gupta
Dibyanshu
                    0.006851851851851852
Harikrishnan Shaji
                           0.18845370370370368
                               7.87037037037037E-4
Hitesh Choudhary
Hrisikesh Neogi 0.2573055555555557
                                                                                                                           2 Items in Trash
[Cloudera Live : Welco...
Cloudera@quickstart:~
```

## 14. Find the number of chats on which they have received a feedback

hive> select agent\_name as agent, sum(total\_chats) as chats, sum(total\_feedback) as chats\_with\_feedback\_received from agent\_performance group by agent\_name;

```
hive> select agent_name, sum(total_chats) as chats,sum(total_feedback) as total_feedbacks from agent_performances group by
agent name:
Query ID = cloudera_20230322092727_1adc00b3-497f-4d7a-a87a-6c0ffd31bc24
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_1679467492549_0029, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0029/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0029
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-22 09:27:12,799 Stage-1 map = 0%, reduce = 0%
2023-03-22 09:27:24,326 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.39 sec
2023-03-22 09:27:37,450 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 2.92 sec
MapReduce Total cumulative CPU time: 2 seconds 920 msec
Ended Job = job_1679467492549_0029
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 2.92 sec HDFS Read: 118676 HDFS Write: 1278 SUCCESS
Total MapReduce CPU Time Spent: 2 seconds 920 msec
                  chats
agent name
                           total_feedbacks
Abhishek
Aditya
Aditya Shinde
                  277
                           153
Aditya_iot
Amersh 0
                  231
                           131
Ameya Jain
                  322
                           228
Anirudh 81
                  39
Ankit Sharma
                           0
                  Θ
Ankitjha
Anurag Tiwari
                           3
Aravind 366
                  233
                           9
Ashad Nasim
                  18
Ayushi Mishra
                  514
                           329
Bharath 369 247
Boktiar Ahmed Bappy
                           452
                                     311
Chaitra K Hiremath
Deepranjan Gupta
                           493
                                    312
Dibvanshu
Harikrishnan Shaji
                           381
                                     231
Hitesh Choudhary
Hrisikesh Neogi 578
                           367
Hyder Abbas
                           0
Ineuron Intelligence
Ishawant Kumar
                           202
```

# 15. Total contribution hour for each and every agents weekly basis

hive> select week, agent, sum((time[0]\*3600+time[1]\*60+time[2])/3600) as total\_hrs\_contributed from(select agent, weekofyear(date) as week, split(duration,':') as time from agent\_loging) t group by agent, week;

```
hive> select s.agent, sum(col1[0]*3600+col1[1]*60+col1[2])/3600 total_hours, s.weekly from (select agent, split(duration,':
') as coll, weekofyear(date) as weekly from agent logging)s group by s.agent, s.weekly;
Query ID = cloudera_20230322092424_ccb05267-9c2b-4ale-b60a-6914c23ec675
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_1679467492549_0028, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0028/Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0028
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-03-22 09:24:15,641 Stage-1 map = 0%, reduce = 0%
2023-03-22 09:24:26,959 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.99 sec
2023-03-22 09:24:38,991 Stage-1 map = 100%,
                                               reduce = 100%, Cumulative CPU 3.99 sec
MapReduce Total cumulative CPU time: 3 seconds 990 msec
Ended Job = job_1679467492549_0028
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 3.99 sec HDFS Read: 66162 HDFS Write: 3035 SUCCESS
Total MapReduce CPU Time Spent: 3 seconds 990 msec
s.agent total_hours
Aditya Shinde
                 0.03611111111111111
                                          30
Aditya iot
                 6.09527777777778
                                          29
                 9.635833333333334
Aditya_iot
Amersh 3.06388888888888
                 24.08305555555557
Ameya Jain
                                          29
Ameva Jain
                 17.9925 30
                 2.2669444444444444
Ankitjha
Anurag Tiwari
                 0.2644444444444444
Anurag Tiwari
                 2.514444444444445
                                          30
Aravind 24.23555555555557
Aravind 0.0636111111111111
                                  30
Ayushi Mishra 17.7902777777778
                                          29
Ayushi Mishra
                 20.33138888888889
                                          30
29
                                  30
                         17.7502777777778
Boktiar Ahmed Bappy
Boktiar Ahmed Bappy
                         22.5183333333333334
                                                   30
Chaitra K Hiremath
                         2.23472222222222
                                                   29
                         32.090833333333336
Chaitra K Hiremath
                                                   30
Deepranjan Gupta
                         48.99638888888889
                                                   29
Deepranjan Gupta
                          57.278888888888886
                                                   30
Dibyanshu
                 27.74388888888889
```

16. Perform inner join, left join and right join based on the agent column and after joining the table export that data into your local system.

# Inner Join:

```
hive> select I.*, p.* > from > agent_loging I > inner join > agent_performance p > on l.agent = p.agent_name > limit 3;
```

```
hive> select l.*,p.* from agent logging l inner join agent performances p on l.agent=p.agent_name limit 3;
Query ID = cloudera_20230322093030_3158a588-0f21-4ad2-b14c-e9695885299b
 Total iobs = 1
2023-03-22 09:30:26
 Execution completed successfully
 MapredLocal task succeeded
MapredLocal task succeeded
Launching Job 1 out of 1
Number of reduce tasks is set to 0 since there's no reduce operator
Starting Job = job_1679467492549_0030, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0030/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0030
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0
2023-03-22 09:30:39,478 Stage-3 map = 0%, reduce = 0%
2023-03-22 09:30:49,378 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 1.91 sec
MapReduce Total cumulative CPU time: 1 seconds 910 msec
Finded_lob = iob_16794674092549_0030
Ended Job = job_1679467492549_0030
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 1.91 sec HDFS Read: 13371 HDFS Write: 315 SUCCESS
Total MapReduce CPU Time Spent: 1 seconds 910 msec
 l.s no l.agent l.date l.login time
                                                       l.logout time l.duration
                                                                                                  p.s no p.date p.agent name
                                                                                                                                             p.total chats
                                                                                                                                                                    p.a
                                 p.average_resolution_time
2022-07-30 12:32:28
                                                                                                             p.total_feedback
 verage_response_time
                                                                             p.average_rating
                                                                                                   1:37:40 1
 16
           Prerna Singh
                                                                             14:10:08
                                                                                                                        2022-07-30
                                                                                                                                             Prerna Singh
                                                                                                                                                                    110
  :00:38 0:04:20 4.11
           Prerna Singh
                                 2022-07-29
                                                       17:47:06
                                                                                                   3:16:37 1
                                                                                                                        2022-07-30
 75
                                                                             21:03:44
                                                                                                                                              Prerna Singh
                                                                                                                                                                    110
  :00:38 0:04:20 4.11
                                 2022-07-29
                                                       15:08:22
                                                                             17:20:49
                                                                                                   2:12:27 1
                                                                                                                        2022-07-30
 91
           Prerna Singh
                                                                                                                                              Prerna Singh
                                                                                                                                                                    110
 :00:38 0:04:20 4.11
 Time taken: 35.862 seconds, Fetched: 3 row(s)
hive>
 [Oloudera Live : Welco...
[Cloudera@quickstart:~
```

#### Left Join:

hive> select l.\*, p.\* > from > agent\_loging l > left join > agent\_performance p > on l.agent = p.agent name > limit 3;

```
hive> select l.*,p.* from agent_logging l left join agent_performances p on l.agent=p.agent_name limit 3;
Query ID = cloudera_20230322093232_4736ad4f-85b5-4acd-aa43-229bc54fa1b6
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20230322093232_4736ad4f-85b5-4acd-aa43-229bc54falb6.log
2023-03-22 09:32:50 Starting to launch local task to process map join; maximum memory = 1013645312
2023-03-22 09:32:52 Dump the side-table for tag: 1 with group count: 70 into file: file:/tmp/cloudera/a72b7dc9-5850-403
7-8732-74c59d57f0fd/hive_2023-03-22_09-32-42_428_8442372344074333733-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile11--.h
ashtable
                                 Uploaded 1 File to: file:/tmp/cloudera/a72b7dc9-5850-4037-8732-74c59d57f0fd/hive_2023-03-22_09-32-4
2 428 8442372344074333733-1/-local-10003/HashTable-Stage-3/MapJoin-mapfilel1--.hashtable (73261 bytes) 2023-03-22 09:32:52 End of local task; Time Taken: 2.48 sec.
Execution completed successfully
MapredLocal task succeeded
Launching Job 1 out of 1
Number of reduce tasks is set to 0 since there's no reduce operator
Starting Job = job_1679467492549_0031, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0031/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0031
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0 2023-03-22 09:33:06,489 Stage-3 map = 0%, reduce = 0% 2023-03-22 09:33:15,746 Stage-3 map = 100\%, reduce = 0%, Cumulative CPU 1.64 sec
MapReduce Total cumulative CPU time: 1 seconds 640 msec 
Ended Job = job 1679467492549 0031
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1
                                Cumulative CPU: 1.64 sec HDFS Read: 13232 HDFS Write: 348 SUCCESS
Total MapReduce CPU Time Spent: 1 seconds 640 msec
0K
l.s no l.agent l.date l.login time
                                                        l.logout time l.duration
                                                                                                     p.s_no p.date p.agent_name
                                                                                                                                                 p.total chats p.a
                                                                              p.average_rating
verage_response_time
                                p.average_resolution_time
                                                                                                                p.total
                                                                                                                            feedback
          Shivananda Sonwane 2022
4 0:01:14 0:16:53 5.0
                                                                   15:35:29
                                            2022-07-30
                                                                                          17:39:39
                                                                                                                2:04:10 69
                                                                                                                                       2022-07-30
                                                                                                                                                              Shivananda
Sonwane 4
           Shivananda Sonwane
                                            2022-07-30
                                                                   15:35:29
                                                                                          17:39:39
                                                                                                                 2:04:10 73
                                                                                                                                       2022-07-29
                                                                                                                                                              Shivananda
                     0:00:45 0:15:38 4.67 9
enda Sonwane 2022-07-30
Sonwane 14
           Shivananda Sonwane
                                                                                                                2:04:10 214
                                                                                                                                       2022-07-28
                                                                   15:35:29
                                                                                          17:39:39
                                                                                                                                                              Shivananda
Sonwane 5
                      0:00:31 0:38:04 5.0
Time taken: 35.469 seconds, Fetched: 3 row(s)
[Oloudera Live : Welco...
Cloudera@quickstart:~
```

# **Right Join:**

hive> select I.\*, p.\* > from > agent\_loging I > right join > agent\_performance p > on l.agent = p.agent name > limit 3;

```
hive> select l.*,p.* from agent logging l right join agent performances p on l.agent=p.agent_name limit 3;
Query ID = cloudera_20230322093333_0df41b0a-0d94-4387-9a33-3f86bc12bee1
 Total jobs = 1
 Execution log at: /tmp/cloudera/cloudera_20230322093333_0df4lb0a-0d94-4387-9a33-3f86bc12bee1.log 2023-03-22 09:34:07 Starting to launch local task to process map join; maximum memory = 1013645312
 2023-03-22 09:34:07 Starting to launch local task to process map join; maximum memory = 1013645312 2023-03-22 09:34:09 Dump the side-table for tag: 0 with group count: 49 into file: file:/tmp/cloudera/a72b7dc9-5850-403 7-8732-74c59d57f0fd/hive_2023-03-22_09-33-59_794_6377935058102073276-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile20--.h
 2023-03-22 09:34:09 Uploaded 1 File to: file:/tmp/cloudera/a72b7dc9-5850-4037-8732-74c59d57f0fd/hive_2023-03-22_09-33-5 9_794_6377935058102073276-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile20--.hashtable (37895 bytes)
 2023-03-22 09:34:09
                                       End of local task; Time Taken: 2.111 sec.
 Execution completed successfully
 MapredLocal task succeeded
 Launching Job 1 out of 1
 Number of reduce tasks is set to 0 since there's no reduce operator
 Number of reduce tasks is set to 0 since there's no reduce operator

Starting Job = job_1679467492549_0032, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0032/

Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0032

Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0

2023-03-22 09:34:22,440 Stage-3 map = 0%, reduce = 0%

2023-03-22 09:34:23,607 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 1.62 sec

MapReduce Total cumulative CPU time: 1 seconds 620 msec
 Ended Job = job_1679467492549_0032
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative
                                       Cumulative CPU: 1.62 sec HDFS Read: 13206 HDFS Write: 315 SUCCESS
 Total MapReduce CPU Time Spent: 1 seconds 620 msec
 0K
 l.s_no l.agent l.date l.login_time
                                                                  l.logout_time
                                                                                           l.duration
                                                                                                                     p.s_no p.date p.agent_name
                                                                                                                                                                         p.total_chats
 verage_response_time
16 Prerna Singh
                                       p.average_resolution_time
2022-07-30 12:32:28
                                                                                            2022-07-30
                                                                                                                                                                          Prerna Singh
                                                                                                                                                                                                    110
 :00:38 0:04:20 4.11
                                                                                                                     3:16:37 1
 75
              Prerna Singh
                                        2022-07-29
                                                                 17:47:06
                                                                                           21:03:44
                                                                                                                                               2022-07-30
                                                                                                                                                                          Prerna Singh
                                                                                                                                                                                                    110
 :00:38 0:04:20 4.11
 91 Prerna Singh
:00:38 0:04:20 4.11
                                        2022-07-29
                                                                 15:08:22
                                                                                            17:20:49
                                                                                                                     2:12:27 1
                                                                                                                                               2022-07-30
                                                                                                                                                                          Prerna Singh
                                                                                                                                                                                                    110
 Time taken: 33.967 seconds, Fetched: 3 row(s)
 hive>
 [Oloudera Live : Welco...
[Oloudera@quickstart:~
```

# **Export data into local system:**

## **Inner Join:**

[cloudera@quickstart ~]\$ hive -e 'select I.\*, p.\* from agent.agent\_loging I inner join agent.agent\_performance p on I.agent = p.agent\_name limit 10' > /home/cloudera/Hive\_Mini\_Proj-1/agent\_inner\_join.csv

```
[cloudera@quickstart ~]$ hive -e 'select l.*,p.* from agent_details.agent_logging l inner join agent_details.agent_performa
nces p on l.agent=p.agent name limit 10' > /home/cloudera/Hive-Mini-Proj-l/agent inner join.csv
```

```
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
Query ID = cloudera_20230322100404_adde67fb-1de3-4526-9203-f15c221fca04
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20230322100404_adde67fb-1de3-4526-9203-f15c221fca04.log
2023-03-22 10:04:26 Starting to launch local task to process map join; maximum memory = 1013645312 2023-03-22 10:04:28 Dump the side-table for tag: 0 with group count: 49 into file: file:/tmp/cloudera/94675fc3-073f-4a2 c-a93a-0e2c90b0fa5f/hive_2023-03-22_10-04-16_466_7061998434702171190-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile00--.h
ashtable
2023-03-22 10:04:29
                               Uploaded 1 File to: file:/tmp/cloudera/94675fc3-073f-4a2c-a93a-0e2c90b0fa5f/hive_2023-03-22_10-04-1
6_466_7061998434702171190-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile00--.hashtable (37895 bytes)
2023-03-22 10:04:29
                               End of local task; Time Taken: 2.738 sec.
Execution completed successfully
MapredLocal task succeeded
Launching Job 1 out of 1
Number of reduce tasks is set to 0 since there's no reduce operator
Starting Job = job_1679467492549_0033, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0033/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job 1679467492549 0033 Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0 2023-03-22 10:04:44,286 Stage-3 map = 0\%, reduce = 0\%
2023-03-22 10:04:54,922 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 1.91 sec
MapReduce Total cumulative CPU time: 1 seconds 910 msec
Ended Job = job 1679467492549 0033
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 1.91 sec
Total MapReduce CPU Time Spent: 1 seconds 910 msec
                              Cumulative CPU: 1.91 sec HDFS Read: 13199 HDFS Write: 1057 SUCCESS
Time taken: 39.659 seconds, Fetched: 10 row(s)
```

#### Left Join:

[cloudera@quickstart ~]\$ hive -e 'select I.\*, p.\* from agent.agent\_loging I left join agent.agent\_performance p on I.agent = p.agent\_name limit 10' > /home/cloudera/Hive\_Mini\_Proj-1/agent\_left\_join.csv

```
[cloudera@quickstart ~]$ hive -e 'select l.*,p.* from agent_details.agent_logging l left join agent_details.agent_performan ces p on l.agent=p.agent name limit 10' > /home/cloudera/Hive-Mini-Proi-1/agent left join.csy
```

```
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
Query ID = cloudera 20230322100808 aed251eb-9c58-4abc-a6d1-86eaa012af3c
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20230322100808_aed251eb-9c58-4abc-a6d1-86eaa012af3c.log
2023-03-22 10:08:31
2023-03-22 10:08:34
                                Starting to launch local task to process map join; maximum memory = 1013645312

Dump the side-table for tag: 1 with group count: 70 into file: file:/tmp/cloudera/fda467eb-1868-43f
6-84d8-acb16441e481/hive_2023-03-22_10-08-22_365_3563291185952597523-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile01--.h
ashtable
2023-03-22 10:08:34
                                Uploaded 1 File to: file:/tmp/cloudera/fda467eb-1868-43f6-84d8-acb16441e481/hive 2023-03-22 10-08-2
2_365_3563291185952597523-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile01--.hashtable (73261 bytes)
2023-03-22 10:08:34
                               End of local task; Time Taken: 2.503 sec.
Execution completed successfully
MapredLocal task succeeded
Launching Job 1 out of 1
Number of reduce tasks is set to 0 since there's no reduce operator
Number of reduce tasks is set to 0 since there's no reduce operator

Starting Job = job_1679467492549_0034, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1679467492549_0034/

Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1679467492549_0034

Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0

2023-03-22 10:08:47,877 Stage-3 map = 0%, reduce = 0%
2023-03-22 10:08:58,279 Stage-3 map = 100%,
                                                            reduce = 0%, Cumulative CPU 1.71 sec
MapReduce Total cumulative CPU time: 1 seconds 710 msec Ended Job = job_1679467492549_0034
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 1.71 sec HDFS Read: 13060 HDFS Write: 1173 SUCCESS Total MapReduce CPU Time Spent: 1 seconds 710 msec
Time taken: 37.265 seconds. Fetched: 10 row(s)
```

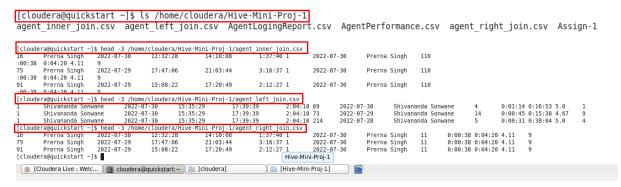
### **Right Join:**

[cloudera@quickstart ~]\$ hive -e 'select I.\*, p.\* from agent.agent\_loging I right join agent.agent\_performance p on I.agent = p.agent\_name limit 10' > /tmp/Agent\_data/agent\_right\_join.csv

```
[cloudera@quickstart ~]$ hive -e 'select l.*,p.* from agent_details.agent_logging l right join agent_details.agent_performa
nces p on l.agent=p.agent name limit 10' > /home/cloudera/Hīve-Mini-Proj-T/agent right join.csv
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4i.properties
Query ID = cloudera 20230322100909 476e3b0f-32a4-488c-80bb-673f26a694c7
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20230322100909_476e3b0f-32a4-488c-80bb-673f26a694c7.log
2023-03-22 10:10:05
                          Starting to launch local task to process map join;
                                                                                      maximum memory = 1013645312
2023-03-22 10:10:07 Dump the side-table for tag: 0 with group count: 49 into file: file:/tmp/cloudera/69e5e43b-81f9-4a2 5-8de6-76fe89672e3c/hive_2023-03-22_10-09-56_353_8276029881292291054-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile00--.h
Execution completed successfully
MapredLocal task succeeded
Launching Job 1 out of 1
Number of reduce tasks is set to 0 since there's no reduce operator
Starting\ Job = job\_1679467492549\_0035,\ Tracking\ URL = http://quickstart.cloudera:8088/proxy/application\_1679467492549\_0035/Kill\ Command = /usr/lib/hadoop/bin/hadoop job -kill job\_1679467492549\_0035
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0
2023-03-22 10:10:22,394 Stage-3 map = 0%, reduce = 0% 2023-03-22 10:10:32,751 Stage-3 map = 100%, reduce = 0
                                                 reduce = 0%, Cumulative CPU 1.55 sec
MapReduce Total cumulative CPU time: 1 seconds 550 msec
Ended Job = job 1679467492549 0035
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1
                         Cumulative CPU: 1.55 sec HDFS Read: 13034 HDFS Write: 1057 SUCCESS
Total MapReduce CPU Time Spent: 1 seconds 550 msec
```

#### Check the exported data in local system:

Time taken: 37.72 seconds, Fetched: 10 row(s)



17. Perform partitioning on top of the agent column and then on top of that perform bucketing for each partitioning.

First set the below mentioned properties to be true.

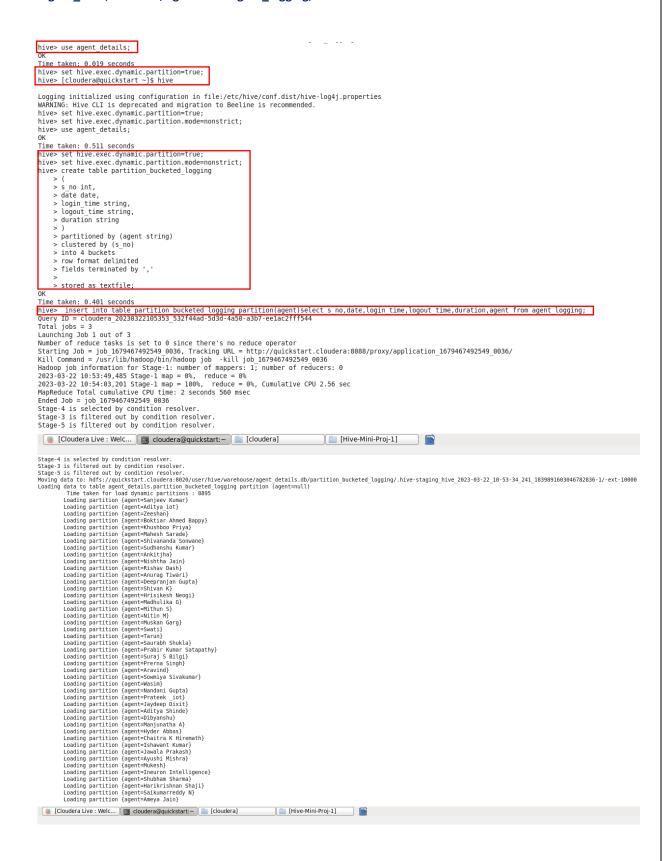
hive> set hive.exec.dynamic.partition=true;

hive> set hive.exec.dynamic.patition.mode=nonstrict;

## **Create Partition\_bucketed table:**

# Load data into Partition\_bucketed table:

hive> insert into table partition\_bucketed\_loging partition(agent) select s\_no, date, login\_time, logout\_time, duration, agent from agent\_logging;



```
Partition agent details.partition bucketed logging(agent=Ankitjha) stats: [numfiles=1, numRows=4, totalSize=164, rawDataSize=166]
Partition agent details.partition bucketed logging(agent=Anving) stats: [numfiles=1, numRows=37, totalSize=1500, rawDataSize=1463]
Partition agent details.partition bucketed logging(agent=Anving) stats: [numfiles=1, numRows=18, totalSize=272, rawDataSize=161]
Partition agent details.partition bucketed logging(agent=Anving) stats: [numfiles=1, numRows=18, totalSize=272, rawDataSize=163]
Partition agent details.partition bucketed logging(agent=Chaitra A ktremath) stats: [numfiles=1, numRows=13, totalSize=389, rawDataSize=663]
Partition agent details.partition bucketed logging(agent=Chaitra Ktremath) stats: [numfiles=1, numRows=13, totalSize=389, rawDataSize=517]
Partition agent details.partition bucketed logging(agent=Chaitra Ktremath) stats: [numfiles=1, numRows=28, totalSize=389, rawDataSize=280]
Partition agent details.partition bucketed logging(agent=Partition stats: [numfiles=1, numRows=28, totalSize=380], rawDataSize=389]
Partition agent details.partition bucketed logging(agent=Aprix*ishman Banj) stats: [numfiles=1, numRows=28, totalSize=38]
Partition agent details.partition bucketed logging(agent=Aprix*ishman Banj) stats: [numfiles=1, numRows=28, totalSize=38]
Partition agent details.partition bucketed logging(agent=Aprix*ishman Banj) stats: [numfiles=1, numRows=28, totalSize=38]
Partition agent details.partition bucketed logging(agent=Aprix*ishman Banj) and partition agent details.partition bucketed logging
```