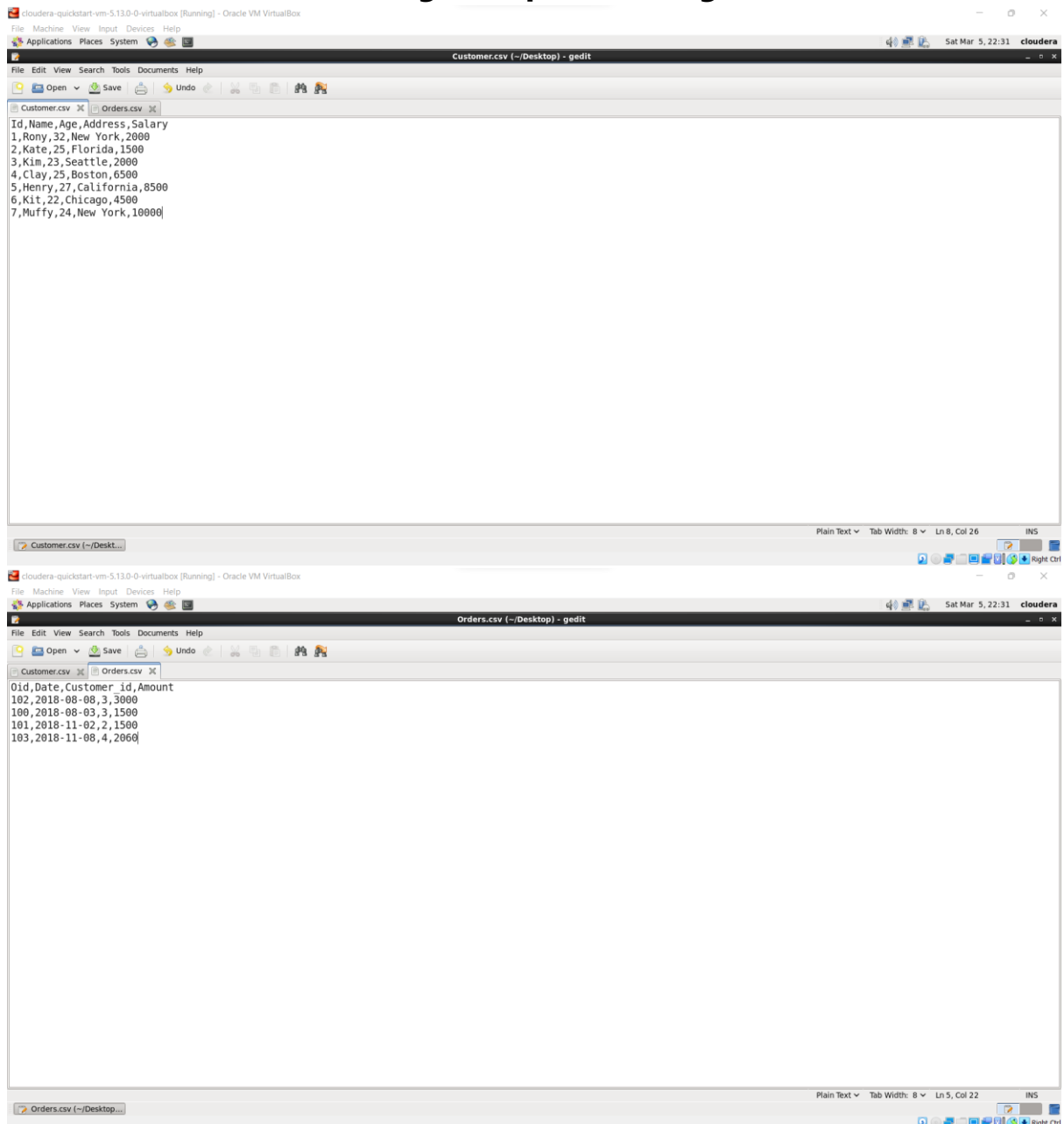


## Practical 6

### Joins, Sorting, Subqueries using HiveQL

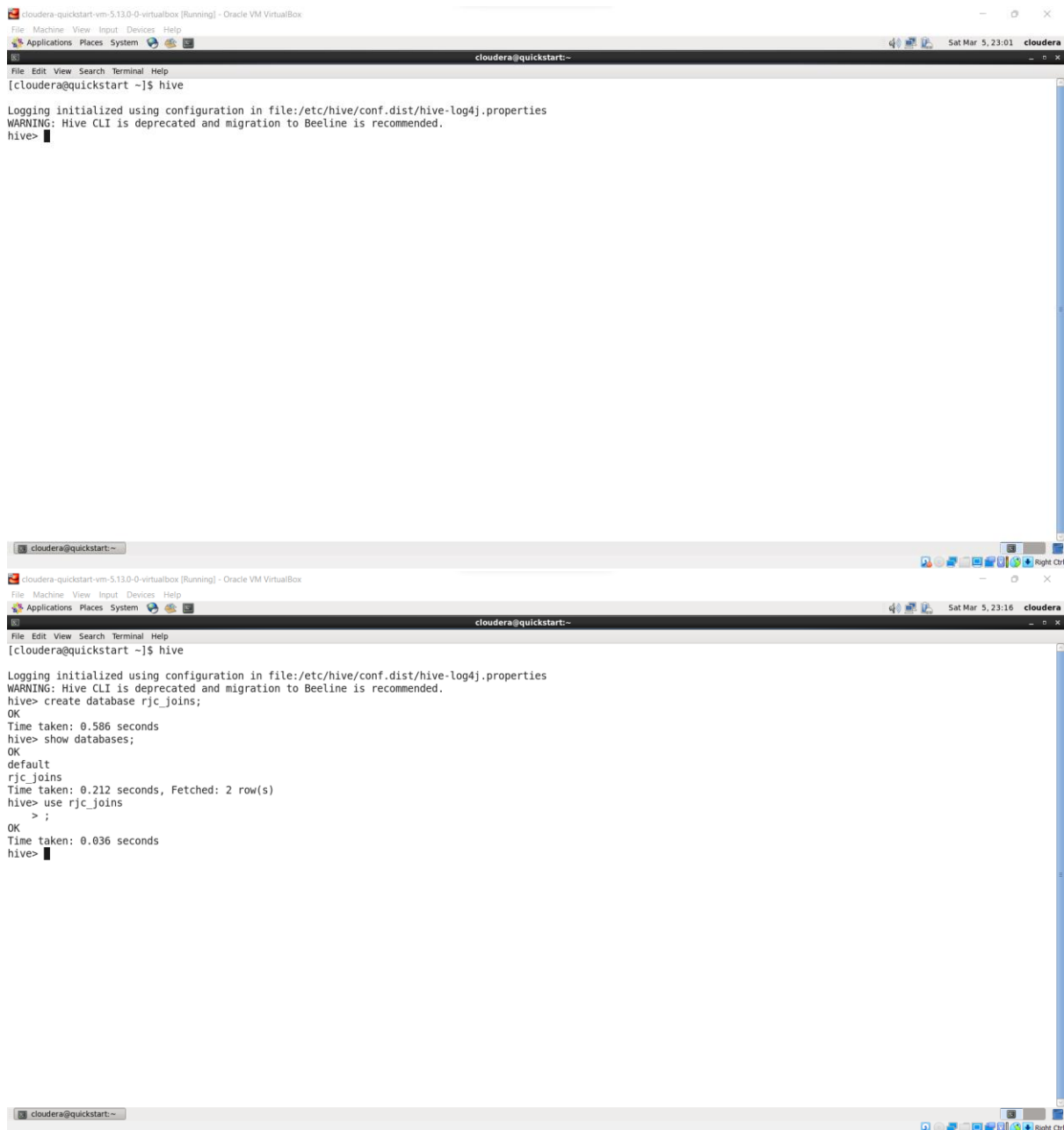


The screenshot displays two gedit windows within a cloudera-quickstart-vm-5.13.0-0-virtualbox environment. The top window, titled 'Customer.csv (~/.Desktop) - gedit', contains the following CSV data:

Id	Name	Age	Address	Salary
1	Rony	32	New York	2000
2	Kate	25	Florida	1500
3	Kim	23	Seattle	2000
4	Clay	25	Boston	6500
5	Henry	27	California	8500
6	Kit	22	Chicago	4500
7	Muffy	24	New York	10000

The bottom window, titled 'Orders.csv (~/.Desktop) - gedit', contains the following CSV data:

OrderId	Date	Customer_id	Amount
102	2018-08-08	3	3000
100	2018-08-03	3	1500
101	2018-11-02	2	1500
103	2018-11-08	4	2060



The image shows a terminal window titled "cloudera-quickstart-vm-5.13.0-0-virtualbox [Running] - Oracle VM VirtualBox". The terminal prompt is "cloudera@quickstart:~". The user enters the command "hive". The output shows logging initialization and a warning about the deprecated Hive CLI. The user then enters "create database rjc\_joins;", which is successful. Next, the user enters "show databases;", which lists "default" and "rjc\_joins". Finally, the user enters "use rjc\_joins", which is also successful.

```
cloudera@quickstart:~]$ 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>
cloudera@quickstart:~]$ 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> create database rjc_joins;
OK
Time taken: 0.586 seconds
hive> show databases;
OK
default
rjc_joins
Time taken: 0.212 seconds, Fetched: 2 row(s)
hive> use rjc_joins
> ;
OK
Time taken: 0.036 seconds
hive>
```

```

cloudera@quickstart:~$ 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> create database rjc_joins;
OK
Time taken: 0.586 seconds
hive> show databases;
OK
default
rjc_joins
Time taken: 0.212 seconds, Fetched: 2 row(s)
hive> use rjc_joins
> ;
OK
Time taken: 0.036 seconds
hive> create table customers(ID int, Name string, Age int, Address string, Salary float);
OK
Time taken: 0.273 seconds
hive> describe customers;
OK
id          int
name        string
age         int
address     string
salary      float
Time taken: 0.127 seconds, Fetched: 5 row(s)
hive>

hive> load data local inpath '/home/cloudera/Documents/Customer.csv' into table customers;
Loading data to table rjc_joins.customers
Table rjc_joins.customers stats: [numFiles=1, totalSize=193]
OK
Time taken: 0.522 seconds
hive> select * from customers;
OK
1      Rony   32      New York      2000.0
2      Kate   25      Florida 1500.0
3      Kim    23      Seattle 2000.0
4      Clay   25      Boston  6500.0
5      Henry   27      California 8500.0
6      Kit    22      Chicago  4500.0
7      Muffy   24      New York  10000.0
Time taken: 0.207 seconds, Fetched: 7 row(s)
hive> create table orders(oid int, odate date, cid int, amount float);
> row format delimited
> fields terminated by ','
> tblproperties('skip.header.line.count'='1')
> ;
OK
Time taken: 0.048 seconds
hive> describe orders;
OK
oid      int
odate    date
cid      int
amount   float
Time taken: 0.06 seconds, Fetched: 4 row(s)
hive> load data local inpath '/home/cloudera/Documents/Orders.csv' into table orders;
Loading data to table rjc_joins.orders
Table rjc_joins.orders stats: [numFiles=1, totalSize=116]
OK
Time taken: 0.209 seconds

```

```
hive> load data local inpath '/home/cloudera/Documents/Orders.csv' into table orders;
```

```

Loading data to table rjc_joins.orders
Table rjc_joins.orders stats: [numFiles=1, totalSize=116]
OK
Time taken: 0.209 seconds
hive> select * from orders;
OK
102      2018-08-08      3      3000.0
100      2018-08-03      3      1500.0
101      2018-11-02      2      1500.0
103      2018-11-08      4      2060.0
Time taken: 0.061 seconds, Fetched: 4 row(s)

```

```

hive> select c.id,c.name,c.age,o.amount from customers c JOIN orders o on (c.id=o.cid);
Query ID = cloudera_20220307042222_65baf454-dfe5-4854-95f4-28ea7c23d175
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20220307042222_65baf454-dfe5-4854-95f4-28ea7c23d175.log
2022-03-07 04:22:24 Starting to launch local task to process map join; maximum memory = 1013645312
2022-03-07 04:22:25 Dump the side-table for tag: 1 with group count: 3 into file: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-22-20_285_55
42149295361652784-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile01--.hashtable
2022-03-07 04:22:25 Uploaded 1 File to: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-22-20_285_5542149295361652784-1/-local-10003/HashTable
-Stage-3/MapJoin-mapfile01--.hashtable (338 bytes)
2022-03-07 04:22:25 End of local task; Time Taken: 1.061 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_1646549941829_0001, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0001/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0001
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0
2022-03-07 04:22:36,009 Stage-3 map = 0%, reduce = 0%
2022-03-07 04:22:42,387 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 1.08 sec
MapReduce Total cumulative CPU time: 1 seconds 80 msec
Ended Job = job_1646549941829_0001
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 1.08 sec HDFS Read: 7006 HDFS Write: 66 SUCCESS
Total MapReduce CPU Time Spent: 1 seconds 80 msec
OK
2 Kate 25 1500.0
3 Kim 23 3000.0
3 Kim 23 1500.0
4 Clay 25 2060.0
Time taken: 23.172 seconds, Fetched: 4 row(s)
hive>
hive> select c.id,c.name,o.amount,o.odate from customers c LEFT OUTER JOIN orders o on (c.id=o.cid);
Query ID = cloudera_20220307042626_56994ce4-7ef2-45f3-b444-8d059f32d2de
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20220307042626_56994ce4-7ef2-45f3-b444-8d059f32d2de.log
2022-03-07 04:27:01 Starting to launch local task to process map join; maximum memory = 1013645312
2022-03-07 04:27:01 Dump the side-table for tag: 1 with group count: 3 into file: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-26-57_533_29
25978228984052158-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile11--.hashtable
2022-03-07 04:27:02 Uploaded 1 File to: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-26-57_533_2925978228984052158-1/-local-10003/HashTable
-Stage-3/MapJoin-mapfile11--.hashtable (350 bytes)
2022-03-07 04:27:02 End of local task; Time Taken: 0.822 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_1646549941829_0002, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0002/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0002
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0
2022-03-07 04:27:10,050 Stage-3 map = 0%, reduce = 0%
2022-03-07 04:27:15,399 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 0.91 sec
MapReduce Total cumulative CPU time: 910 msec
Ended Job = job_1646549941829_0002
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 0.91 sec HDFS Read: 7084 HDFS Write: 151 SUCCESS
Total MapReduce CPU Time Spent: 910 msec
OK
1 Rony NULL NULL
2 Kate 1500.0 2018-11-02
3 Kim 3000.0 2018-08-08
3 Kim 1500.0 2018-08-03
4 Clay 2060.0 2018-11-08
5 Henry NULL NULL
6 Kit NULL NULL
7 Muffy NULL NULL
Time taken: 19.964 seconds, Fetched: 8 row(s)
hive>
hive> select c.id,c.name,o.amount,o.odate from customers c RIGHT OUTER JOIN orders o on (c.id=o.cid);
Query ID = cloudera_20220307042828_37186107-bccd-4a33-ab7e-b15459763851
Total jobs = 1
Execution log at: /tmp/cloudera/cloudera_20220307042828_37186107-bccd-4a33-ab7e-b15459763851.log
2022-03-07 04:29:02 Starting to launch local task to process map join; maximum memory = 1013645312
2022-03-07 04:29:02 Dump the side-table for tag: 0 with group count: 7 into file: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-28-58_281_19
37004485362177210-1/-local-10003/HashTable-Stage-3/MapJoin-mapfile20--.hashtable
2022-03-07 04:29:02 Uploaded 1 File to: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-28-58_281_1937004485362177210-1/-local-10003/HashTable
-Stage-3/MapJoin-mapfile20--.hashtable (428 bytes)
2022-03-07 04:29:02 End of local task; Time Taken: 0.814 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_1646549941829_0003, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0003/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0003
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 0
2022-03-07 04:29:10,365 Stage-3 map = 0%, reduce = 0%
2022-03-07 04:29:15,711 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 0.92 sec
MapReduce Total cumulative CPU time: 920 msec
Ended Job = job_1646549941829_0003
MapReduce Jobs Launched:
Stage-Stage-3: Map: 1 Cumulative CPU: 0.92 sec HDFS Read: 6997 HDFS Write: 98 SUCCESS
Total MapReduce CPU Time Spent: 920 msec
OK
3 Kim 3000.0 2018-08-08
3 Kim 1500.0 2018-08-03
2 Kate 1500.0 2018-11-02
4 Clay 2060.0 2018-11-08
Time taken: 18.483 seconds, Fetched: 4 row(s)
hive>

```

```

hive> select max(salary) from customers where customers.salary not in(select max(salary) from customers);
Warning: Map Join MAPJOIN[62][bigTable=customers] in task 'Stage-8:MAPRED' is a cross product
Warning: Shuffle Join JOIN[24][tables = [customers, sq_1_notin_nullcheck]] in Stage 'Stage-1:MAPRED' is a cross product
Query ID = cloudera_20220307043434_d705e995-7ab9-4e45-bdaf-a3a968d74410
Total jobs = 7
Launching Job 1 out of 7
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_1646549941829_0004, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0004/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0004
Hadoop job information for Stage-4: number of mappers: 1; number of reducers: 1
2022-03-07 04:34:52,625 Stage-4 map = 0%, reduce = 0%
2022-03-07 04:34:52,493 Stage-4 map = 100%, reduce = 0%, Cumulative CPU 0.72 sec
2022-03-07 04:35:00,884 Stage-4 map = 100%, reduce = 100%, Cumulative CPU 1.6 sec
MapReduce Total cumulative CPU time: 1 seconds 600 msec
Ended Job = job_1646549941829_0004
Launching Job 2 out of 7
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_1646549941829_0005, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0005/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0005
Hadoop job information for Stage-5: number of mappers: 1; number of reducers: 1
2022-03-07 04:35:08,986 Stage-5 map = 0%, reduce = 0%
2022-03-07 04:35:14,274 Stage-5 map = 100%, reduce = 0%, Cumulative CPU 0.74 sec
2022-03-07 04:35:20,645 Stage-5 map = 100%, reduce = 100%, Cumulative CPU 1.89 sec
MapReduce Total cumulative CPU time: 1 seconds 890 msec
Ended Job = job_1646549941829_0005
Stage-11 is selected by condition resolver.
Stage-1 is filtered out by condition resolver.
Execution log at: /tmp/cloudera/cloudera_20220307043434_d705e995-7ab9-4e45-bdaf-a3a968d74410.log
2022-03-07 04:35:25 Starting to launch local task to process map join; maximum memory = 1013645312
2022-03-07 04:35:26 Dump the side-table for tag: 1 with group count: 1 into file: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-34-45_657_8f
21817900743599164-1/-local-10009/HashTable-Stage-8/MapJoin-mapfile41--.hashtable
2022-03-07 04:35:26 Uploaded 1 File to: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-34-45_657_8621817900743599164-1/-local-10009/HashTable
-Stage-8/MapJoin-mapfile41--.hashtable (276 bytes)
2022-03-07 04:35:26 End of local task; Time Taken: 0.879 sec.
Execution completed successfully
MapredLocal task succeeded
Launching Job 4 out of 7
Number of reduce tasks is set to 0 since there's no reduce operator
Starting Job = job_1646549941829_0006, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0006/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0006
Hadoop job information for Stage-8: number of mappers: 1; number of reducers: 0
2022-03-07 04:35:32,936 Stage-8 map = 0%, reduce = 0%
2022-03-07 04:35:39,230 Stage-8 map = 100%, reduce = 0%, Cumulative CPU 0.95 sec
MapReduce Total cumulative CPU time: 950 msec
Ended Job = job_1646549941829_0006
Stage-10 is selected by condition resolver.
Stage-2 is filtered out by condition resolver.
Execution log at: /tmp/cloudera/cloudera_20220307043434_d705e995-7ab9-4e45-bdaf-a3a968d74410.log
2022-03-07 04:35:43 Starting to launch local task to process map join; maximum memory = 1013645312
2022-03-07 04:35:44 Dump the side-table for tag: 1 with group count: 1 into file: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-34-45_657_8f
21817900743599164-1/-local-10007/HashTable-Stage-6/MapJoin-mapfile31--.hashtable
2022-03-07 04:35:44 Uploaded 1 File to: file:/tmp/cloudera/elb2a643-2317-4d85-ac96-6c16b96e4869/hive_2022-03-07_04-34-45_657_8621817900743599164-1/-local-10007/HashTable
-Stage-6/MapJoin-mapfile31--.hashtable (281 bytes)
2022-03-07 04:35:44 End of local task; Time Taken: 0.83 sec.
Execution completed successfully
MapredLocal task succeeded
Launching Job 6 out of 7
Number of reduce tasks is set to 0 since there's no reduce operator
Starting Job = job_1646549941829_0007, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0007/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0007
Hadoop job information for Stage-6: number of mappers: 1; number of reducers: 0
2022-03-07 04:35:51,345 Stage-6 map = 0%, reduce = 0%
2022-03-07 04:35:57,654 Stage-6 map = 100%, reduce = 0%, Cumulative CPU 1.06 sec
MapReduce Total cumulative CPU time: 1 seconds 60 msec
Ended Job = job_1646549941829_0007
Launching Job 7 out of 7
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_1646549941829_0008, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0008/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0008
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 1
2022-03-07 04:36:05,321 Stage-3 map = 0%, reduce = 0%
2022-03-07 04:36:11,720 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 0.62 sec
2022-03-07 04:36:17,973 Stage-3 map = 100%, reduce = 100%, Cumulative CPU 1.65 sec
MapReduce Total cumulative CPU time: 1 seconds 650 msec
Ended Job = job_1646549941829_0008
MapReduce Jobs Launched:
Stage-Stage-4: Map: 1 Reduce: 1 Cumulative CPU: 1.6 sec HDFS Read: 7256 HDFS Write: 117 SUCCESS
Stage-Stage-5: Map: 1 Reduce: 1 Cumulative CPU: 1.89 sec HDFS Read: 8623 HDFS Write: 114 SUCCESS
Stage-Stage-8: Map: 1 Cumulative CPU: 0.95 sec HDFS Read: 5238 HDFS Write: 243 SUCCESS
Stage-Stage-6: Map: 1 Cumulative CPU: 1.06 sec HDFS Read: 5078 HDFS Write: 117 SUCCESS
Stage-Stage-3: Map: 1 Reduce: 1 Cumulative CPU: 1.65 sec HDFS Read: 4715 HDFS Write: 7 SUCCESS
Total MapReduce CPU Time Spent: 7 seconds 150 msec
OK
8500.0
Time taken: 93.389 seconds, Fetched: 1 row(s)
hive> █

```

```

hive> select salary from customers sort by salary desc limit 4;
Query ID = cloudera_20220307044040_c598d51e-2081-4184-8154-56882c1d3e99
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_1646549941829_0009, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0009/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0009
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2022-03-07 04:40:40,240 Stage-1 map = 0%, reduce = 0%
2022-03-07 04:40:46,561 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 0.75 sec
2022-03-07 04:40:53,884 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 1.58 sec
MapReduce Total cumulative CPU time: 1 seconds 580 msec
Ended Job = job_1646549941829_0009
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_1646549941829_0010, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0010/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0010
Hadoop job information for Stage-2: number of mappers: 1; number of reducers: 1
2022-03-07 04:41:01,510 Stage-2 map = 0%, reduce = 0%
2022-03-07 04:41:06,864 Stage-2 map = 100%, reduce = 0%, Cumulative CPU 0.64 sec
2022-03-07 04:41:14,176 Stage-2 map = 100%, reduce = 100%, Cumulative CPU 1.61 sec
MapReduce Total cumulative CPU time: 1 seconds 610 msec
Ended Job = job_1646549941829_0010
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 1.58 sec HDFS Read: 6305 HDFS Write: 180 SUCCESS
Stage-Stage-2: Map: 1 Reduce: 1 Cumulative CPU: 1.61 sec HDFS Read: 4598 HDFS Write: 29 SUCCESS
Total MapReduce CPU Time Spent: 3 seconds 190 msec
OK
10000.0
8500.0
6500.0
4500.0
Time taken: 40.877 seconds, Fetched: 4 row(s)
hive>

hive> select salary from (select salary from customers sort by salary desc limit 4) result sort by salary asc limit 1;
Query ID = cloudera_20220307044646_07b3455d-d055-4012-bff1-652ecc67c782
Total jobs = 4
Launching Job 1 out of 4
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_1646549941829_0011, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0011/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0011
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2022-03-07 04:46:45,746 Stage-1 map = 0%, reduce = 0%
2022-03-07 04:46:54,423 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 1.17 sec
2022-03-07 04:47:03,069 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 2.52 sec
MapReduce Total cumulative CPU time: 2 seconds 520 msec
Ended Job = job_1646549941829_0011
Launching Job 2 out of 4
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_1646549941829_0012, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0012/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0012
Hadoop job information for Stage-2: number of mappers: 1; number of reducers: 1
2022-03-07 04:47:14,427 Stage-2 map = 0%, reduce = 0%
2022-03-07 04:47:22,101 Stage-2 map = 100%, reduce = 0%, Cumulative CPU 1.01 sec
2022-03-07 04:47:30,838 Stage-2 map = 100%, reduce = 100%, Cumulative CPU 2.37 sec
MapReduce Total cumulative CPU time: 2 seconds 370 msec
Ended Job = job_1646549941829_0012
Launching Job 3 out of 4
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_1646549941829_0013, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0013/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0013
Hadoop job information for Stage-3: number of mappers: 1; number of reducers: 1
2022-03-07 04:47:42,213 Stage-3 map = 0%, reduce = 0%
2022-03-07 04:47:49,820 Stage-3 map = 100%, reduce = 0%, Cumulative CPU 1.0 sec
2022-03-07 04:47:59,568 Stage-3 map = 100%, reduce = 100%, Cumulative CPU 2.39 sec
MapReduce Total cumulative CPU time: 2 seconds 390 msec
Ended Job = job_1646549941829_0013
Launching Job 4 out of 4
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_1646549941829_0014, Tracking URL = http://quickstart.cloudera:8088/proxy/application_1646549941829_0014/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1646549941829_0014
Hadoop job information for Stage-4: number of mappers: 1; number of reducers: 1
2022-03-07 04:48:09,820 Stage-4 map = 0%, reduce = 0%
2022-03-07 04:48:17,393 Stage-4 map = 100%, reduce = 0%, Cumulative CPU 1.02 sec
2022-03-07 04:48:27,063 Stage-4 map = 100%, reduce = 100%, Cumulative CPU 2.6 sec
MapReduce Total cumulative CPU time: 2 seconds 600 msec
Ended Job = job_1646549941829_0014
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 2.52 sec HDFS Read: 6322 HDFS Write: 180 SUCCESS
Stage-Stage-2: Map: 1 Reduce: 1 Cumulative CPU: 2.37 sec HDFS Read: 3735 HDFS Write: 180 SUCCESS
Stage-Stage-3: Map: 1 Reduce: 1 Cumulative CPU: 2.39 sec HDFS Read: 3753 HDFS Write: 117 SUCCESS
Stage-Stage-4: Map: 1 Reduce: 1 Cumulative CPU: 2.6 sec HDFS Read: 4540 HDFS Write: 7 SUCCESS
Total MapReduce CPU Time Spent: 9 seconds 880 msec
OK
4500.0
Time taken: 111.679 seconds, Fetched: 1 row(s)
hive>

```