[cloudera@quickstart Desktop]\$ hbase shell

2025-05-07 06:26:32,488 INFO [main] Configuration.deprecation: hadoop.native.lib is deprecated. Instead, use io.native.lib.available

HBase Shell; enter 'help<RETURN>' for list of supported commands.

Type "exit<RETURN>" to leave the HBase Shell

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Hbase database creation

hbase(main):001:0> create 'flight_info','details','schedule','delay'

0 row(s) in 2.7600 seconds

=> Hbase::Table - flight_info

hbase(main):002:0> put 'flight_info','flight1','details:airlines','Delta'

0 row(s) in 0.1740 seconds

hbase(main):003:0> put 'flight_info', 'flight1', 'details:source', 'JFK'

0 row(s) in 0.0140 seconds

hbase(main):004:0> put 'flight_info', 'flight1', 'details:destination', 'LAX'

0 row(s) in 0.0260 seconds

hbase(main):005:0> put 'flight_info', 'flight1', 'schedule:departure_time', '2025-05-01 08:00'

0 row(s) in 0.0140 seconds

hbase(main):006:0> put 'flight_info', 'flight1', 'schedule:arrival_time', '2025-05-01 11:00'

0 row(s) in 0.0120 seconds

hbase(main):007:0> put 'flight_info', 'flight1', 'delay:dep_delay', '15'

0 row(s) in 0.0130 seconds

hbase(main):008:0> put 'flight_info', 'flight1', 'delay:arr_delay', '10'

hbase(main):009:0> alter 'flight_info','add','weather'
Updating all regions with the new schema...
0/1 regions updated.
1/1 regions updated.
Done.
Updating all regions with the new schema...
1/1 regions updated.
Done.

[cloudera@quickstart Desktop]\$ hive

0 row(s) in 5.1120 seconds

Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties WARNING: Hive CLI is deprecated and migration to Beeline is recommended.

Mapping Hive and executing queries

hive> CREATE EXTERNAL TABLE flight_hive (

- > flight_id STRING,
- > airline STRING,
- > source STRING,
- > destination STRING,
- > departure_time STRING,
- > arrival_time STRING,
- > dep_delay INT,
- > arr_delay INT
- >)
- > STORED BY 'org.apache.hadoop.hive.hbase.HBaseStorageHandler'
- > WITH SERDEPROPERTIES (
- > 'hbase.columns.mapping' = ":key,details:airline,details:source,details:destination,
- > schedule:departure_time,schedule:arrival_time,

```
delay:dep_delay,delay:arr_delay"
  >
  >)
  > TBLPROPERTIES ("hbase.table.name" = "flight_info");
OK
Time taken: 1.312 seconds
hive> SELECT * FROM flight_hive
  >;
OK
flight1 NULL JFK
                      LAX
                             2025-05-01 08:00
                                                    2025-05-01 11:00
                                                                          15
                                                                                  10
Time taken: 1.683 seconds, Fetched: 1 row(s)
hive> SELECT SUM(dep_delay) AS total_departure_delay
  > FROM flight_hive;
Query ID = cloudera_20250507064848_77409f07-bf3f-42be-a191-ecf9eff50a22
Total jobs = 1
Launching Job 1 out of 1
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_1744085536392_0008, Tracking URL =
http://quickstart.cloudera:8088/proxy/application 1744085536392 0008/
Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1744085536392_0008
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2025-05-07 06:49:25,154 Stage-1 map = 0%, reduce = 0%
2025-05-07 06:49:42,130 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 3.12 sec
2025-05-07 06:49:51,670 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.41 sec
MapReduce Total cumulative CPU time: 4 seconds 410 msec
Ended Job = job_1744085536392_0008
```

MapReduce Jobs Launched:

Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.41 sec HDFS Read: 9022 HDFS Write: 3

SUCCESS

Total MapReduce CPU Time Spent: 4 seconds 410 msec

OK

15

Time taken: 66.159 seconds, Fetched: 1 row(s)

hive> SELECT AVG(dep_delay) AS avg_departure_delay

> FROM flight_hive;

Query ID = cloudera_20250507065050_6eb79164-40af-4703-a0ba-daed64abebaf

Total jobs = 1

Launching Job 1 out of 1

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_1744085536392_0009, Tracking URL = http://quickstart.cloudera:8088/proxy/application 1744085536392 0009/

Kill Command = /usr/lib/hadoop/bin/hadoop job -kill job_1744085536392_0009

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

2025-05-07 06:51:19,669 Stage-1 map = 0%, reduce = 0%

2025-05-07 06:51:31,922 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 2.65 sec

2025-05-07 06:51:43,148 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 4.05 sec

MapReduce Total cumulative CPU time: 4 seconds 50 msec

Ended Job = job_1744085536392_0009

MapReduce Jobs Launched:

Stage-Stage-1: Map: 1 Reduce: 1 Cumulative CPU: 4.05 sec HDFS Read: 9623 HDFS Write: 5

SUCCESS

Total MapReduce CPU Time Spent: 4 seconds 50 msec

ОК

15.0

Time taken: 52.513 seconds, Fetched: 1 row(s)

hbase(main):010:0> CREATE INDEX idx_airline ON flight_info (details:airline);