```
[cloudera@quickstart ~]$ hbase shell
2023-05-28 11:32:39,979 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
Version 1.0.0-cdh5.4.2, rUnknown, Tue May 19 17:07:29 PDT 2015

hbase(main):001:0> create 'fli', 'finfo', 'fsch', 'fdel'
0 row(s) in 1.3880 seconds

=> Hbase::Table - fli
hbase(main):002:0> put 'fli', 1, 'finfo:fname','FA'
0 row(s) in 0.2650 seconds

hbase(main):003:0> put 'fli', 1, 'finfo:numb','1'
0 row(s) in 0.0340 seconds

hbase(main):004:0> put 'fli', 1, 'fsch:source', 'Pune'
0 row(s) in 0.0100 seconds

hbase(main):005:0> put 'fli', 1, 'fsch:dest', 'Delhi'
0 row(s) in 0.0120 seconds

hbase(main):006:0> put 'fli', 1, 'fdel:at', 10.00
0 row(s) in 0.0080 seconds

hbase(main):007:0> put 'fli', 1, 'fdel:dt', 10.15
0 row(s) in 0.0090 seconds

hbase(main):008:0> put 'fli', 1, 'fdel:delay', 15
0 row(s) in 0.0090 seconds

hbase(main):009:0> put 'fli', 2, 'finfo:fname','FB'
0 row(s) in 0.0070 seconds

hbase(main):010:0> put 'fli', 2, 'finfo:numb','2'
0 row(s) in 0.0060 seconds

hbase(main):011:0> put 'fli', 2, 'fsch:source', 'Bangalore'
0 row(s) in 0.0060 seconds

hbase(main):012:0> put 'fli', 2, 'fsch:dest', 'Kolkata'
0 row(s) in 0.0050 seconds
```

```
hbase(main):013:0> put 'fli', 2, 'fdel:at', 10.20
0 row(s) in 0.0090 seconds

hbase(main):014:0> put 'fli', 2, 'fdel:dt', 10.30
0 row(s) in 0.0050 seconds

hbase(main):015:0> put 'fli', 2, 'fdel:delay', 20
0 row(s) in 0.0100 seconds

hbase(main):016:0> scan 'fli'
ROW                                     COLUMN+CELL
 1                                      column=fdel:at, timestamp=1685299021375, value=10.0
 1                                      column=fdel:delay, timestamp=1685299045832,
value=15
 1                                      column=fdel:dt, timestamp=1685299030497,
value=10.15
 1                                      column=finfo:fname, timestamp=1685298900307,
value=FA
 1                                      column=finfo:numb, timestamp=1685298942813,
value=1
 1                                      column=fsch:dest, timestamp=1685298989328,
value=Delhi
 1                                      column=fsch:source, timestamp=1685298974302,
value=Pune
 2                                      column=fdel:at, timestamp=1685299138408, value=10.2
 2                                      column=fdel:delay, timestamp=1685299158201,
value=20
 2                                      column=fdel:dt, timestamp=1685299147125, value=10.3
 2                                      column=finfo:fname, timestamp=1685299060964,
value=FB
 2                                      column=finfo:numb, timestamp=1685299074019,
value=2
 2                                      column=fsch:dest, timestamp=1685299118688,
value=Kolkata
 2                                      column=fsch:source, timestamp=1685299095439,
value=Bangalore
2 row(s) in 0.1920 seconds

hbase(main):017:0> list
TABLE
Customer_Info
Order_Info
fli
flight
```

```
flight1
plane
6 row(s) in 0.0420 seconds

=> ["Customer_Info", "Order_Info", "fli", "flight", "flight1", "plane"]

hbase(main):018:0> create 'my__table', 'cola'
0 row(s) in 0.4640 seconds

hbase(main):021:0> alter 'my__table', NAME => 'colb'
Updating all regions with the new schema...
0/1 regions updated.
1/1 regions updated.
Done.
0 row(s) in 2.2330 seconds


hbase(main):023:0> scan 'my__table'
ROW                                     COLUMN+CELL
0 row(s) in 0.0100 seconds


hbase(main):025:0> disable 'my__table'
0 row(s) in 1.2430 seconds

hbase(main):026:0> drop 'my__table'
0 row(s) in 0.1900 seconds

[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 external TABLE hfli(fid int, fname string, fno string, fsource string, fdest string,
farr float, fdep float, fdel int) STORED BY
'org.apache.hadoop.hive.hbase.HBaseStorageHandler' WITH SERDEPROPERTIES
("hbase.columns.mapping" = ":key, finfo:fname , finfo:numb, fsch:source, fsch:dest, fdel:at,
fdel:dt, fdel:delay") TBLPROPERTIES ("hbase.table.name"="fli");
OK
Time taken: 2.897 seconds

hive> select * from hfli;
OK
1       FA      1       Pune    Delhi   10.0    10.15   15
```

```
2	FB	2	Bangalore	Kolkata	10.2	10.3	20
Time taken: 1.895 seconds, Fetched: 2 row(s)

hive> select SUM(fdel) from hfli;
Query ID = cloudera_20230528123838_7026c9a4-8e07-4a09-8b07-b9e523f5ef36
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_1685298617110_0001, Tracking URL =
http://quickstart.cloudera:8088/proxy/application_1685298617110_0001/
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1685298617110_0001
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-05-28 12:39:01,672 Stage-1 map = 0%,  reduce = 0%
2023-05-28 12:39:14,498 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.57 sec
2023-05-28 12:39:26,202 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU 2.49 sec
MapReduce Total cumulative CPU time: 2 seconds 490 msec
Ended Job = job_1685298617110_0001
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 2.49 sec   HDFS Read: 7564 HDFS
Write: 3 SUCCESS
Total MapReduce CPU Time Spent: 2 seconds 490 msec
OK
35
Time taken: 44.459 seconds, Fetched: 1 row(s)

hive> select AVG(fdel) from hfli;
Query ID = cloudera_20230528124343_397204b3-2fbc-4dda-a827-8d306472c65a
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_1685298617110_0002, Tracking URL =
http://quickstart.cloudera:8088/proxy/application_1685298617110_0002/
```

```
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1685298617110_0002
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-05-28 12:43:32,341 Stage-1 map = 0%,  reduce = 0%
2023-05-28 12:43:44,227 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 1.65 sec
2023-05-28 12:43:54,845 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU 2.66 sec
MapReduce Total cumulative CPU time: 2 seconds 660 msec
Ended Job = job_1685298617110_0002
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 2.66 sec   HDFS Read: 14815 HDFS
Write: 5 SUCCESS
Total MapReduce CPU Time Spent: 2 seconds 660 msec
OK
17.5
Time taken: 39.953 seconds, Fetched: 1 row(s)

hive> CREATE INDEX idx_del ON TABLE hfli(fdel) AS 'COMPACT' WITH DEFERRED
REBUILD;
OK
Time taken: 0.783 seconds

hive> SHOW INDEXES ON hfli
    > ;
OK
idx_del                 hfli            fdel            default__hfli_idx_del__         compact

Time taken: 0.094 seconds, Fetched: 1 row(s)
```