Statement 06 - (flight)

[cloudera@quickstart Desktop]$ hbase shell

```
2023-05-28 07:41:13,422 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
```

Create Table->

```
hbase(main):001:0> create 'flight','finfo','fsch'
0 row(s) in 0.8920 seconds

=> Hbase::Table - flight
```

```
hbase(main):003:0> list
TABLE
flight
1 row(s) in 0.0840 seconds

=> ["flight"]
```

Insert Data into table ->

```
hbase(main):004:0> put 'flight', 1, 'finfo:source', 'pune'
0 row(s) in 0.3120 seconds
```

```
hbase(main):005:0> put 'flight', 1, 'finfo:dest', 'mumbai'
0 row(s) in 0.0260 seconds
```

```
hbase(main):006:0> put 'flight', 1, 'finfo:year', 2023
0 row(s) in 0.0810 seconds
```

```
hbase(main):007:0> put 'flight', 1, 'fsch:at', '10:00'
0 row(s) in 0.1180 seconds
```

```
hbase(main):008:0> put 'flight', 1, 'fsch:dt', '18:00'
0 row(s) in 0.0170 seconds
```

```
hbase(main):009:0> put 'flight', 1, 'fsch:delay_in_min', 24
0 row(s) in 0.0270 seconds
```

See data of table ->

```
hbase(main):010:0> scan 'flight'
ROW            COLUMN+CELL
1              column=finfo:dest, timestamp=1685285419082, value=mumbai
1              column=finfo:source, timestamp=1685285397638, value=pune
1              column=finfo:year, timestamp=1685285544040, value=2023
1              column=fsch:at, timestamp=1685285603182, value=10:00
1              column=fsch:delay_in_min, timestamp=1685285667887, value=24
1              column=fsch:dt, timestamp=1685285623635, value=18:00

1 row(s) in 0.2020 seconds

hbase(main):011:0> put 'flight', 2, 'finfo:source', 'pune'
0 row(s) in 0.0210 seconds

hbase(main):012:0> put 'flight', 2, 'finfo:dest', 'aurangabad'
0 row(s) in 0.0060 seconds

hbase(main):013:0> put 'flight', 2, 'finfo:year', 2023
0 row(s) in 0.0200 seconds

hbase(main):014:0> put 'flight', 2, 'fsch:at', '11:00'
0 row(s) in 0.0310 seconds

hbase(main):015:0> put 'flight', 2, 'fsch:dt', '13:00'
0 row(s) in 0.0230 seconds

hbase(main):016:0> put 'flight', 2, 'fsch:delay_in_min', 14
0 row(s) in 0.0350 seconds

hbase(main):017:0> scan 'flight'
ROW            COLUMN+CELL
1              column=finfo:dest, timestamp=1685285419082, value=mumbai
1              column=finfo:source, timestamp=1685285397638, value=pune
1              column=finfo:year, timestamp=1685285544040, value=2023
1              column=fsch:at, timestamp=1685285603182, value=10:00
1              column=fsch:delay_in_min, timestamp=1685285667887, value=24
1              column=fsch:dt, timestamp=1685285623635, value=18:0
2              column=finfo:dest, timestamp=1685285792986, value=aurangabad
2              column=finfo:source, timestamp=1685285781202, value=pune
2              column=finfo:year, timestamp=1685285805656, value=2023
2              column=fsch:at, timestamp=1685285820073, value=11:00
2              column=fsch:delay_in_min, timestamp=1685285840188, value=14
2              column=fsch:dt, timestamp=1685285829979, value=13

2 row(s) in 0.2800 seconds
```

UPDATE:->

```
hbase(main):018:0> put 'flight', 1, 'fsch:delay_in_min', 25
0 row(s) in 0.0690 seconds

hbase(main):019:0> scan 'flight'
ROW            COLUMN+CELL
1              column=finfo:dest, timestamp=1685285419082, value=mumbai
```

```
1               column=finfo:source, timestamp=1685285397638, value=pune
1               column=finfo:year, timestamp=1685285544040, value=2023
1               column=fsch:at, timestamp=1685285603182, value=10:00
1               column=fsch:delay_in_min, timestamp=1685285667887, value=25
1               column=fsch:dt, timestamp=1685285623635, value=18:00
2               column=finfo:dest, timestamp=1685285792986, value=aurangabad
2               column=finfo:source, timestamp=1685285781202, value=pune
2               column=finfo:year, timestamp=1685285805656, value=2023
2               column=fsch:at, timestamp=1685285820073, value=11:00
2               column=fsch:delay_in_min, timestamp=1685285840188, value=14
2               column=fsch:dt, timestamp=1685285829979, value=13

2 row(s) in 0.2800 seconds
```

```
hbase(main):018:0> put 'flight', 4, 'fsch:delay_in_min', 35
0 row(s) in 0.0690 seconds
```

```
hbase(main):019:0> scan 'flight'
ROW             COLUMN+CELL
1               column=finfo:dest, timestamp=1685285419082, value=mumbai
1               column=finfo:source, timestamp=1685285397638, value=pune
1               column=finfo:year, timestamp=1685285544040, value=2023
1               column=fsch:at, timestamp=1685285603182, value=10:00
1               column=fsch:delay_in_min, timestamp=1685285667887, value=25
1               column=fsch:dt, timestamp=1685285623635, value=18:00
2               column=finfo:dest, timestamp=1685285792986, value=aurangabad
2               column=finfo:source, timestamp=1685285781202, value=pune
2               column=finfo:year, timestamp=1685285805656, value=2023
2               column=fsch:at, timestamp=1685285820073, value=11:00
2               column=fsch:delay_in_min, timestamp=1685285840188, value=14
2               column=fsch:dt, timestamp=1685285829979, value=13
4               column=fsch:delay_in_min, timestamp= 1685286187320, value=35

2 row(s) in 0.2800 seconds
```

```
hbase(main):020:0> delete 'flight', 4, 'fsch:delay_in_min', 1685286187320
0 row(s) in 0.0860 seconds
```

```
hbase(main):021:0> scan 'flight'
ROW             COLUMN+CELL
1               column=finfo:dest, timestamp=1685285419082, value=mumbai
1               column=finfo:source, timestamp=1685285397638, value=pune
1               column=finfo:year, timestamp=1685285544040, value=2023
1               column=fsch:at, timestamp=1685285603182, value=10:00
1               column=fsch:dt, timestamp=1685285623635, value=18:00
2               column=finfo:dest, timestamp=1685285792986, value=aurangabad
2               column=finfo:source, timestamp=1685285781202, value=pune
2               column=finfo:year, timestamp=1685285805656, value=2023
2               column=fsch:at, timestamp=1685285820073, value=11:00
2               column=fsch:delay_in_min, timestamp=1685285840188, value=14
2               column=fsch:dt, timestamp=1685285829979, value=13

2 row(s) in 0.2800 seconds
```

```
hbase(main):001:0> ALTER 'flight',NAME=>'revenue'
Updating all regions with the new schema...
0/1 regions updated.
1/1 regions updated.
```

```
Done.
0 row(s) in 2.8010 seconds
```

```
hbase(main):018:0* put 'flight', 1, 'revenue:rs', 23000
0 row(s) in 0.2960 seconds
```

```
hbase(main):019:0> put 'flight', 2, 'revenue:rs', 18000
0 row(s) in 0.0100 seconds
```

```
hbase(main):021:0> scan 'flight'
ROW            COLUMN+CELL
1              column=finfo:dest, timestamp=1685285419082, value=mumbai
1              column=finfo:source, timestamp=1685285397638, value=pune
1              column=finfo:year, timestamp=1685285544040, value=2023
1              column=fsch:at, timestamp=1685285603182, value=10:00
1              column=fsch:dt, timestamp=1685285623635, value=18:0
1              column=revenue:rs, timestamp=1685289655545, value=23000
2              column=finfo:dest, timestamp=1685285792986, value=aurangabad
2              column=finfo:source, timestamp=1685285781202, value=pune
2              column=finfo:year, timestamp=1685285805656, value=2023
2              column=fsch:at, timestamp=1685285820073, value=11:00
2              column=fsch:delay_in_min, timestamp=1685285840188, value=14
2              column=fsch:dt, timestamp=1685285829979, value=13
2              column=revenue:rs, timestamp=1685289663304, value=18000

2 row(s) in 0.2800 seconds
```

```
hbase(main):024:0> ^C[cloudera@quickstart Desktop]$
```

CTRL + C to terminate hbase shell

[cloudera@quickstart Desktop]$ 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 hbase_flight_new(fno int, fsource string, fdest string, fsh_at string, fsh_dt string, delay int)
    > STORED BY 'org.apache.hadoop.hive.hbase.HBaseStorageHandler'
    > WITH SERDEPROPERTIES ('hbase.columns.mapping' = ':key,finfo:source, finfo:dest, fsch:at, fsch:dt, fsch:delay_in_min')
    > TBLPROPERTIES('hbase.table.name'='flight')
    > ;

```
OK
Time taken: 5.139 seconds
```

hive> select * from hbase_flight_new;

```
OK
1       pune    mumbai 10:00   18:00   25
2       pune    aurangabad     11:00   13:00   14
Time taken: 0.949 seconds, Fetched: 2 row(s)
```

hive> select sum(delay) from hbase_flight_new;

```
Query ID = cloudera_20230528082424_77549976-b71a-469a-8b59-f35ce2b36e37
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_1685282847848_0001, Tracking URL =
http://quickstart.cloudera:8088/proxy/application_1685282847848_0001/
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1685282847848_0001
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-05-28 08:24:34,411 Stage-1 map = 0%,  reduce = 0%
2023-05-28 08:24:46,718 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 2.78 sec
2023-05-28 08:24:59,256 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU 4.5 sec
```

```
MapReduce Total cumulative CPU time: 4 seconds 500 msec
Ended Job = job_1685282847848_0001
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 4.5 sec   HDFS Read: 7412 HDFS Write: 3 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 500 msec
OK
39
Time taken: 45.913 seconds, Fetched: 1 row(s)
```

```
hive> select avg(delay) from hbase_flight_new;
Query ID = cloudera_20230528082525_54ec1527-eaac-498d-808a-560918989fe1
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_1685282847848_0002, Tracking URL =
http://quickstart.cloudera:8088/proxy/application_1685282847848_0002/
Kill Command = /usr/lib/hadoop/bin/hadoop job  -kill job_1685282847848_0002
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2023-05-28 08:26:12,573 Stage-1 map = 0%,  reduce = 0%
2023-05-28 08:26:22,800 Stage-1 map = 100%,  reduce = 0%, Cumulative CPU 2.53 sec
2023-05-28 08:26:35,142 Stage-1 map = 100%,  reduce = 100%, Cumulative CPU 4.73 sec
MapReduce Total cumulative CPU time: 4 seconds 730 msec
Ended Job = job_1685282847848_0002
MapReduce Jobs Launched:
Stage-Stage-1: Map: 1  Reduce: 1   Cumulative CPU: 4.73 sec   HDFS Read: 7862 HDFS Write: 5 SUCCESS
Total MapReduce CPU Time Spent: 4 seconds 730 msec
OK
19.5
Time taken: 37.457 seconds, Fetched: 1 row(s)
```

```
hive> CREATE INDEX flight_index
    > ON TABLE hbase_flight_new (delay)
    > AS 'org.apache.hadoop.hive.ql.index.compact.CompactIndexHandler'
    > WITH DEFERRED REBUILD;
OK
Time taken: 0.649 seconds
```

```
hive> show index on hbase_flight_new;
OK
flight_index          hbase_flight_new      delay                 default__hbase_flight_new_flight_index__
       compact
Time taken: 0.325 seconds, Fetched: 1 row(s)

hive> ^C^C[cloudera@quickstart Desktop]$ ^C
```

CTRL + C to terminate hbase shell

```
[cloudera@quickstart Desktop]$ hbase shell
2023-05-28 08:58:53,073 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):029:0> disable 'flight'
0 row(s) in 1.3560 seconds

hbase(main):030:0> drop 'flight'
0 row(s) in 0.2980 seconds
```