

```
hmsce@bmsce-Precision-T1700:~$ cd cassandra
hmsce@bmsce-Precision-T1700:~/cassandra$ cd apache-cassandra-3.11.0/
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0$ cd bin
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqlsh
bash: ./cqlsh: No such file or directory
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqlsh.
bash: ./cqlsh.: No such file or directory
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 3.11.4 | CQL spec 3.4.4 | Native protocol v4]
Use HELP for help.
cqlsh> CREATE KEYSPACE students WITH REPLICATION={
... 'class':'SimpleStrategy',
... 'replication_factor':1};
cqlsh> DESCRIBE KEYSPACES;

students system_schema system_auth system_system_distributed system_traces

cqlsh> SELECT * FROM system_schema.keyspaces;
InvalidRequest: Error from server: code=2200 [Invalid query] message="unconfigured table schema_keyspaces"
cqlsh> SELECT * FROM system_schema.keyspaces;

keyspace_name | durable_writes | replication
-----
system_auth | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}
system_schema | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_distributed | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '3'}
system | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_traces | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '2'}
students | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}

(6 rows)
cqlsh> USE students;
cqlsh:students> create table Student_info(
... rollno int PRIMARY KEY,
... stdname text,
... DateofJoining timestamp,
... LastExamPercent double);
[1]+ Stopped ./cqlsh
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 3.11.4 | CQL spec 3.4.4 | Native protocol v4]
Use HELP for help.
cqlsh> USE students;
...
[2]+ Stopped ./cqlsh
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 3.11.4 | CQL spec 3.4.4 | Native protocol v4]
Use HELP for help.
cqlsh> DESCRIBE KEYSPACES

students system_schema system_auth system_system_distributed system_traces

cqlsh> SELECT * FROM system_schema.keyspaces
... ?

keyspace_name | durable_writes | replication
-----
system_auth | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}
system_schema | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_distributed | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '3'}
system | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_traces | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '2'}
students | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}

(6 rows)
cqlsh> USE students
... ?
cqlsh:students> create table Student_info(
... rollno int PRIMARY KEY,
... stdname text,
... DateofJoining timestamp,
... LastExamPercent double);
SyntaxException: line 2:12 no viable alternative at input '(' (create table Student_info( [1...])
cqlsh:students> create table Student_info( rollno int PRIMARY KEY, stdname text, DateofJoining timestamp, LastExamPercent double);
cqlsh:students> DESCRIBE TABLES;

student_info

cqlsh:students> DESCRIBE TABLE student_info;

CREATE TABLE students.student_info (
rollno int PRIMARY KEY,
dateofjoining timestamp,
lastexampercent double,
stdname text
) WITH bloom_filter_fp_chance = 0.01
AND caching = {'keys': 'ALL', 'rows_per_partition': 'NONE'}
AND comment = ''
AND compaction = {'class': 'org.apache.cassandra.db.compaction.SizeTieredCompactionStrategy', 'max_threshold': '32', 'min_threshold': '4'}
AND compression = {'chunk_length_in_kb': '64', 'class': 'org.apache.cassandra.io.compress.LZ4Compressor'}
AND crc_check_chance = 1.0
AND dclocal_read_repair_chance = 0.1
AND default_time_to_live = 0
AND gc_grace_seconds = 864000
AND max_index_interval = 2048
AND memtable_flush_period_in_ms = 0
AND min_index_interval = 128
AND read_repair_chance = 0.0
AND speculative_retry = '99PERCENTILE';

cqlsh:students> BEGIN BATCH
... INSERT INTO
... student_info(RollNo,StudName,DateofJoining,LastExamPercent)
... VALUES (1,'Michael Storm','2012-03-29', 69.6)
... INSERT INTO student_info
... (RollNo,StudName,DateofJoining,LastExamPercent) VALUES
... (2,'Stephen Fox','2013-02-27', 72.5)
... APPLY BATCH;
InvalidRequest: Error from server: code=2200 [Invalid query] message="Undefined column name studname"
cqlsh:students> BEGIN BATCH INSERT INTO student_info(rollno,stdname,dateofjoining,lastexampercent) VALUES (1,'Michael Storm','2012-03-29', 69.6) INSERT INTO student_info (rollno,stdname,dateofjoining,lastexampercent) VALUES (2,'Stephen Fox','2013-02-27', 72.5) APPLY BATCH;
cqlsh:students> SELECT * from student_info;

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(2 rows)
cqlsh:students> script
[3]+ Stopped ./cqlsh
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ script
Script started, file is typescript
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ stopecript
stopecript: command not found
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ script
Script started, file is typescript
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ exit
exit
Script done, file is typescript
hmsce@bmsce-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ script output.txt
Script started, file is output.txt
```

```

$rmooce-Precision-71700:~/cassandra/apache-cassandra-3.11.0/bin$ ./cqqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 3.11.4 | CQL spec 3.4.4 | Native protocol v4]
Use HELP for help.
cqlsh> DESCRIBE KEYSPACES;

students system_schema system_auth system_system_distributed system_traces

cqlsh> SELECT * FROM system_schema.keyspaces
... ;

keyspace_name | durable_writes | replication
-----
system_auth | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}
system_schema | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_distributed | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '3'}
system_system | True | {'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_traces | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '2'}
students | True | {'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}

(6 rows)
cqlsh> USE students;
cqlsh:students> create table Student_Info(
... RollNo int PRIMARY KEY,
... StudName text,
... DateofJoining timestamp,
... LastExamPercent double);
AlreadyExists: Table 'students.student_info' already exists
cqlsh:students> DESCRIBE TABLES;

student_info

cqlsh:students> DESCRIBE TABLE student_info

CREATE TABLE students.student_info (
    rollno int PRIMARY KEY,
    dateofjoining timestamp,
    lastexampercent double,
    stdname text
) WITH bloom_filter_fp_chance = 0.01
    AND caching = {'keys': 'ALL', 'rows_per_partition': 'NONE'}
    AND comment = ''
    AND compaction = {'class': 'org.apache.cassandra.db.compaction.SizeTieredCompactionStrategy', 'max_threshold': '32', 'min_threshold': '4'}
    AND compression = {'chunk_length_in_kb': '64', 'class': 'org.apache.cassandra.io.compress.LZ4Compressor'}
    AND crc_check_chance = 1.0
    AND dclocal_read_repair_chance = 0.1
    AND default_time_to_live = 0
    AND gc_grace_seconds = 864000
    AND max_index_interval = 2048
    AND memtable_flush_period_in_ms = 0
    AND min_index_interval = 128
    AND read_repair_chance = 0.0
    AND speculative_retry = '99PERCENTILE';

cqlsh:students> SELECT * from student_info;

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(2 rows)
cqlsh:students> UPDATE student_info SET stdname='David Sheen' WHERE rollno=2 ;
cqlsh:students> SELECT * FROM student_info WHERE rollno in (1,2,3);

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | David Sheen

(2 rows)
cqlsh:students> INSERT INTO student_info
... (RollNo,StudName,DateofJoining,LastExamPercent) VALUES
(2,'Stephen Fox','2013-02-27', 72.5);
InvalidRequest: Error from server: code=2200 [Invalid query] message="Undefined column name stdname"
cqlsh:students> INSERT INTO student_info (rollno,stdname,dateofjoining,lastexampercent) VALUES (2,'Stephen Fox','2013-02-27', 72.5);
cqlsh:students> SELECT * from student_info;

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(2 rows)
cqlsh:students> INSERT INTO student_info (rollno,stdname,dateofjoining,lastexampercent) VALUES (3,'Stephen Fox','2013-02-27', 72.5);
cqlsh:students> SELECT * from student_info;

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox
3 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(3 rows)
cqlsh:students> INSERT INTO student_info (rollno,stdname,dateofjoining,lastexampercent) VALUES (4,'Stephen Fox','2013-02-27', 72.5);
cqlsh:students> UPDATE student_info SET stdname='David Sheen' WHERE rollno=2 ;
cqlsh:students> SELECT * from student_info;

rollno | dateofjoining | lastexampercent | stdname
-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | David Sheen
4 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox
3 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(4 rows)
cqlsh:students> CREATE INDEX ON student_info(stdname);
cqlsh:students> SELECT * FROM student_info WHERE stdname='Stephen Fox'
... ;

rollno | dateofjoining | lastexampercent | stdname
-----
4 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox
3 | 2013-02-26 18:30:00.000000+0000 | 72.5 | Stephen Fox

(2 rows)
cqlsh:students> CREATE INDEX ON student_info(lastexampercent);
cqlsh:students> SELECT rollno,lastexampercent FROM student_info LIMIT 2;

rollno | lastexampercent
-----
1 | 69.6
2 | 72.5

(2 rows)
cqlsh:students> SELECT rollno,stdname AS "Name" FROM student_info
... ;

rollno | Name
-----
1 | Michael Storm
2 | David Sheen
4 | Stephen Fox
3 | Stephen Fox

(4 rows)
```

```

cqlsh:students> UPDATE student_info SET stdname="Samaira", lastexampercent=85.7 WHERE rollno=3;
SyntaxException: line 1:41 no viable alternative at input ',' (UPDATE student_info SET stdname=["Samair"]a,...)
cqlsh:students> UPDATE student_info SET stdname="Samaira",lastexampercent=85.7 WHERE rollno=3;
SyntaxException: line 1:41 no viable alternative at input ',' (UPDATE student_info SET stdname=["Samair"]a,...)
cqlsh:students> UPDATE student_info SET stdname="Samaira" lastexampercent=85.7 WHERE rollno=3;
SyntaxException: line 2:22 no viable alternative at input 'lastexampercent' (UPDATE student_info SET stdname=["Samair"]a" lastexampercent...)
cqlsh:students> UPDATE student_info
... SET stdname="Samaira" lastexampercent=85.7 WHERE rollno=3;
SyntaxException: line 2:22 no viable alternative at input 'lastexampercent' (UPDATE student_infoSET stdname=["Samair"]a" lastexampercent...)
cqlsh:students> UPDATE student_info
... SET stdname='Samaira',lastexampercent=85.7
... WHERE rollno=3;
cqlsh:students> SELECT rollno,stdname,lastexampercent
... FROM student_info
... WHERE rollno=3;

rollno | stdname | lastexampercent
-----|-----|-----
3 | Samaira | 85.7

(1 rows)
cqlsh:students> DELETE lastexampercent FROM student_info WHERE rollno=4;
cqlsh:students> SELECT * FROM student_info where rollno=4;

rollno | dateofjoining | lastexampercent | stdname
-----|-----|-----|-----
4 | 2013-02-26 18:30:00.000000+0000 | null | Stephen Fox

(1 rows)
cqlsh:students> DELETE FROM student_info WHERE rollno=4;
cqlsh:students> SELECT * FROM student_info where rollno=4;

rollno | dateofjoining | lastexampercent | stdname
-----|-----|-----|-----

(0 rows)
cqlsh:students> SELECT * FROM student_info
... ;

rollno | dateofjoining | lastexampercent | stdname
-----|-----|-----|-----
1 | 2012-03-28 18:30:00.000000+0000 | 69.6 | Michael Storm
2 | 2013-02-26 18:30:00.000000+0000 | 72.5 | David Sheen
3 | 2013-02-26 18:30:00.000000+0000 | 85.7 | Samaira

(3 rows)
cqlsh:students> CREATE TABLE project_details(
... project_id int,
... project_name text,
... stdname text,
... rating double,
... duration int,
... PRIMARY KEY(project_id,project_name)
... );
cqlsh:students> BEGIN BATCH
... INSERT INTO project_details VALUES (1,'MS data migration', 'David Sheen',3.5, 720)
... INSERT INTO project_details VALUES (1,'MS data WarehouseSET stdname="Samaira" lastexampercent=85.7 WHERE rollno=3;', 'David Sheen',3.5, 720)
... APPLY BATCH;
SyntaxException: line 2:28 no viable alternative at input 'VALUES' (BEGIN BATCHINSERT INTO [project_details] VALUES...)
cqlsh:students> BEGIN BATCH
... INSERT INTO project_details VALUES (1,'MS data migration', 'David Sheen',3.5, 720)
... INSERT INTO project_details VALUES (1,'MS data Warehouse', 'David Sheen',3.9, 1440)
... INSERT INTO project_details VALUES (2,'SAP Reporting', 'Stephen Fox',4.2, 3000)
... INSERT INTO project_details VALUES (2,'SAP BI DW', 'Stephen Fox',4, 9000)
... APPLY BATCH;
SyntaxException: line 2:29 no viable alternative at input 'VALUES' (BEGIN BATCH INSERT INTO [project_details] VALUES...)
cqlsh:students> BEGIN BATCH INSERT INTO project_details(project_id, project_name, stdname, rating, duration) VALUES (1,'MS data migration', 'David Sheen',3.5, 720) INSERT INTO project_details(project_id, project_name, stdname, rating, duration) VALUES (1,'MS data Warehouse', 'David Sheen',3.9, 1440) INSERT INTO project_details(project_id, project_name, stdname, r
cqlsh:students> SELECT * FROM project_details;

project_id | project_name | duration | rating | stdname
-----|-----|-----|-----|-----
1 | MS data Warehouse | 1440 | 3.9 | David Sheen
1 | MS data migration | 720 | 3.5 | David Sheen
2 | SAP BI DW | 9000 | 4 | Stephen Fox
2 | SAP Reporting | 3000 | 4.2 | Stephen Fox

(4 rows)
cqlsh:students> SELECT * FROM project_details WHERE project_id=1;

project_id | project_name | duration | rating | stdname
-----|-----|-----|-----|-----
1 | MS data Warehouse | 1440 | 3.9 | David Sheen
1 | MS data migration | 720 | 3.5 | David Sheen

(2 rows)
cqlsh:students> SELECT * FROM project_details WHERE project_id IN (1,2)
... ORDER BY project_name DESC;
InvalidRequest: Error from server: code=2200 [Invalid query] message="Cannot page queries with both ORDER BY and a IN restriction on the partition key; you must either remove the ORDER BY or the IN and sort client side, or disable paging for this query"
cqlsh:students> PAGING OFF;
Disabled Query paging.
cqlsh:students> SELECT * FROM project_details WHERE project_id IN (1,2) ORDER BY project_name DESC;

project_id | project_name | duration | rating | stdname
-----|-----|-----|-----|-----
2 | SAP Reporting | 3000 | 4.2 | Stephen Fox
2 | SAP BI DW | 9000 | 4 | Stephen Fox
1 | MS data migration | 720 | 3.5 | David Sheen
1 | MS data Warehouse | 1440 | 3.9 | David Sheen

(4 rows)
cqlsh:students> PAGING ON;
Now Query paging is enabled
Page size: 100
cqlsh:students> exit
bmace@bmace-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$ exit
exit
Script done, file is output.txt
bmace@bmace-Precision-T1700:~/cassandra/apache-cassandra-3.11.0/bin$

```