Lab-04

Working with Cassandra in Ubuntu teminal

> cqlsh

① Create Keyspace

> CREATE KEYSPACE students_new' WITH
REPLICATION = {'class': 'Simple strategy',
'replication_fator' : 1 };

② Discribe existing Keyspaces

> Describe KEYSPACES;
Students_new

③. Use the Keyspace
> USE students_new;
@ cqlsh: students_new>

④. To create table

Create Table students_info (roll_no. int
PRIMARY KEY, stuname text, date of joining
timestamp, last exam percent double);

⑤. lookup name of all tables in current keyspace

> DESCRIBE TABLES;
students info

⑥. CRUD

Insert

> BEGIN BATCH;
.. Insert into students_info (Roll_no, studname, dateofjoining, last_exam_prcnt)
VALUES (1, 'Ashu', '2012-3-12', 79.9);
.. Insert into students_info (roll_no, studname, dateofjoining, last_exam_percnt)
VALUES (2, 'Kiran', '2012-3-12', 89.9);
.. VALUES(3, 'Tarun', '2012-3-12', 78.9);
.. VALUES(4, 'Samith', '2012-3-12', 90.9);
.. VALUES(5, 'Swetha', '2012-3-12', 67.9);
.. VALUES(6, 'Rohan', '2012-3-12', 56.9);
.. APPLY BATCH;

⑦. view table data

> SELECT * FROM students_info;

| roll_no | dateofjoining | last_exam_percnt | studname |
|---------|---------------|------------------|----------|
| 1 | 2012-3-12 | 79.9 | Ashu |
| 2 | 2012-3-12 | 89.9 | Kiran |
| 3 | 2012-3-12 | 78.9 | Tarun |
| 4 | 2012-3-12 | 90.9 | Samith |
| 5 | 2012-3-12 | 67.9 | Swetha |
| 6 | 2012-3-12 | 56.9 | Rohan |

⑧ View data table where roll-no columns either has value 1 or 2 or 3

> SELECT *FROM studends-info WHERE
    roll-no IN (1,2,3);

| roll_no | dateofjoining | attendance-percent | studvame |
|---------|---------------|--------------------|----------|
| 1 | 2012-3-12 | 79.9 | Asha |
| 2 | 2012-03-12 | 89.9 | Kiran |
| 3 | 2012-3-12 | 78.9 | Tarun |

⑨ Create index for studvname

> CREATE INDEX ON studentinfo (studname);

⑩ Query based on indexed column

> select * from studends info where studname='Asha'

⑪ Number of rows specified for output

> select roll-no, studname from students-info LIMIT 2;

| roll-no | studname |
|---------|----------|
| P.1 | Asha |
| P2 | Kiran |
| P.8P | |

⑫ Alias for column

> select roll-no as "USN" from student-info;

| USN |
|-----|
| 1 |
| 2 |
| 3 |
| 4 |
| 6 |
| 6 |

**⑬.** Update

Update students-info set StudName = 'David Sheeri' where roll-no = 2;

Upate primary key
Upate student-info set rollno=6 where roll-no=2;
~ Error ~

**⑭.** Add/Set collection

ALTER TABLE students-info ADD hobbies set < text >;

Alter table students-info ADD language list < text >;

Upadate student-info set hobbies = hobbies + {'Chess, Tabletennis'} where roll-no =1;

**⑮.** Using a counter

> Create Table library-book (counter-value counter, book-name varchar, std-name varchar, PRIMARY KEY (book-name, stdname));

Load data into counter column

Upate library-book set counter-value = counter-value +1 where book-name = 'BDA' and Stud-name = 'jeet';

```
cqlsh> create keyspace Students_avy with replication = {'class':'SimpleStrategy'
,'replication_factor':1};
cqlsh> describe keyspaces;

comp        education   students      system_auth          system_views
companny    employee    students_avy  system_distributed   system_virtual_schema
company     javatpoint  studentss     system_schema
company1    student     system        system_traces
```

```
cqlsh:students_avy> begin batch
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(1,'Asha','2012-03-12',79.9)
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(2,'Krian','2012-03-12',89.9)
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(3,'Tarun','2012-03-12',78.9)
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(4,'Samrth','2012-03-12',90.9)
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(5,'Smitha','2012-03-12',67.9)
          ... insert into students_info(Roll_No,StudName,DateOfJoining,last_exam_percent) values(6,'Rohan','2012-03-12',56.9)
          ... apply batch;
cqlsh:students_avy> select * from students_info;

 roll_no | dateofjoining                   | last_exam_percent | studname
---------+---------------------------------+-------------------+----------
       5 | 2012-03-11 18:30:00.000000+0000 |              67.9 |   Smitha
       1 | 2012-03-11 18:30:00.000000+0000 |              79.9 |     Asha
       2 | 2012-03-11 18:30:00.000000+0000 |              89.9 |    Krian
       4 | 2012-03-11 18:30:00.000000+0000 |              90.9 |   Samrth
       6 | 2012-03-11 18:30:00.000000+0000 |              56.9 |    Rohan
       3 | 2012-03-11 18:30:00.000000+0000 |              78.9 |    Tarun

(6 rows)
cqlsh:students_avy> select * from students_info where Roll_No in (1,2,3);

 roll_no | dateofjoining                   | last_exam_percent | studname
---------+---------------------------------+-------------------+----------
       1 | 2012-03-11 18:30:00.000000+0000 |              79.9 |     Asha
       2 | 2012-03-11 18:30:00.000000+0000 |              89.9 |    Krian
       3 | 2012-03-11 18:30:00.000000+0000 |              78.9 |    Tarun

(3 rows)
cqlsh:students_avy> select * from students_info where StudName = 'Asha';
InvalidRequest: Error from server: code=2200 [Invalid query] message="Cannot execute this query as it might involve data filtering and thus may have unpredictable performance. If you want to execute this
query despite the performance unpredictability, use ALLOW FILTERING"
```

```
cqlsh:students_avy> select Roll_No, StudName from students_info LIMIT 2;

 roll_no | studname
---------+----------
       5 |   Smitha
       1 |     Asha

(2 rows)
cqlsh:students_avy> create index on students_info(StudName);
cqlsh:students_avy> select * from students_info where StudName = 'Asha';

 roll_no | dateofjoining                   | last_exam_percent | studname
---------+---------------------------------+-------------------+----------
       1 | 2012-03-11 18:30:00.000000+0000 |              79.9 |     Asha

(1 rows)
cqlsh:students_avy> select Roll_No as "USN" from students_info;

 USN
-----
   5
   1
   2
   4
   6
   3

(6 rows)
cqlsh:students_avy> update students_info set StudName='David Sheen' where Roll_No = 2;
cqlsh:students_avy> update students_info set Roll_No = 6 where Roll_No = 3;
InvalidRequest: Error from server: code=2200 [Invalid query] message="PRIMARY KEY part roll_no found in SET part"
cqlsh:students_avy> select * from students_info;

 roll_no | dateofjoining                   | last_exam_percent | studname
---------+---------------------------------+-------------------+-------------
       5 | 2012-03-11 18:30:00.000000+0000 |              67.9 |      Smitha
       1 | 2012-03-11 18:30:00.000000+0000 |              79.9 |        Asha
       2 | 2012-03-11 18:30:00.000000+0000 |              89.9 | David Sheen
       4 | 2012-03-11 18:30:00.000000+0000 |              90.9 |      Samrth
       6 | 2012-03-11 18:30:00.000000+0000 |              56.9 |       Rohan
       3 | 2012-03-11 18:30:00.000000+0000 |              78.9 |       Tarun

(6 rows)
cqlsh:students_avy> delete last_exam_percent from students_info where Roll_No = 2;
```