Name: Sakshi Srivastava
USN:1BM18CS090

Batch: B3
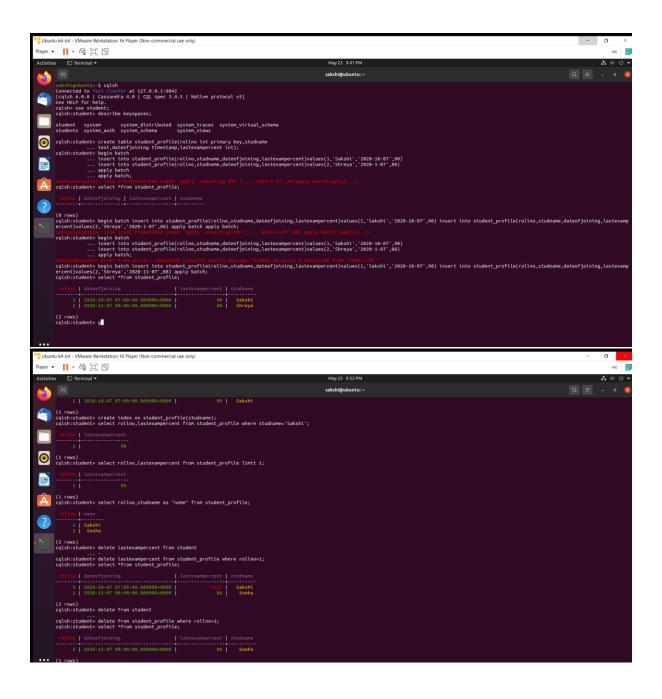
BDA LAB 1-Report

Program 1- Cassandra sample Program

cqlsh> use student;

cqlsh:student> describe keyspaces;

student   system   system_distributed system_traces system_virtual_schema

students system_auth system_schema   system_views

cqlsh:student> create table student_profile(rollno int primary key,studname

    ... text,dateofjoining timestamp,lastexampercent int);

 rollno | dateofjoining | lastexampercent | studname

--------+---------------+-----------------+----------

(0 rows)

cqlsh:student> begin batch insert into
student_profile(rollno,studname,dateofjoining,lastexampercent)values(1,'Sakshi','2020-10-07',90)
insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(2,'Shreya','2020-11-07',88) apply batch;

cqlsh:student> select *from student_profile;

 rollno | dateofjoining | lastexampercent | studname

--------+-------------------------------+-----------------+----------

    1 | 2020-10-07 07:00:00.000000+0000 | 90 | Sakshi

    2 | 2020-11-07 08:00:00.000000+0000 | 88 | Shreya

(2 rows)

cqlsh:student> update student_profile set studname="Sneha' where rollno=2;

```
    ... select *from student_profile;

    ...
cqlsh:student> update student_profile set studname='Sneha' where rollno=2;
cqlsh:student> select *from student_profile;


 rollno | dateofjoining            | lastexampercent | studname
--------+--------------------------------+-----------------+----------
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi
      2 | 2020-11-07 08:00:00.000000+0000 |              88 |    Sneha


(2 rows)
cqlsh:student> select *from student_profile where rollno in (1);


 rollno | dateofjoining            | lastexampercent | studname
--------+--------------------------------+-----------------+----------
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi


(1 rows)
cqlsh:student> create index on student_profile(studname);
cqlsh:student> select rollno,lastexampercent from student_profile where studname='Sakshi';


 rollno | lastexampercent
--------+-----------------
      1 |              90


(1 rows)
cqlsh:student> select rollno,lastexampercent from student_profile limit 1;


 rollno | lastexampercent
--------+-----------------
      1 |              90
```

(1 rows)

cqlsh:student> select rollno,studname as "name" from student_profile;

 rollno | name

--------+--------

      1 | Sakshi

      2 | Sneha

(2 rows)

cqlsh:student> delete lastexampercent from student_profile where rollno=1;

cqlsh:student> select *from student_profile;

 rollno | dateofjoining | lastexampercent | studname

--------+-------------------------------+----------------+----------

      1 | 2020-10-07 07:00:00.000000+0000 | null | Sakshi

      2 | 2020-11-07 08:00:00.000000+0000 | 88 | Sneha

(2 rows)

cqlsh:student> delete from student_profile where rollno=1;

cqlsh:student> select *from student_profile;

 rollno | dateofjoining | lastexampercent | studname

--------+-------------------------------+----------------+----------

      2 | 2020-11-07 08:00:00.000000+0000 | 88 | Sneha

(1 rows)

```
sakshi@ubuntu:~$ cqlsh
Connected to Test Cluster at 127.0.0.1:9042
[cqlsh 6.0.0 | Cassandra 4.0 | CQL spec 3.4.5 | Native protocol v5]
Use HELP for help.
cqlsh> use student;
cqlsh:student> describe keyspaces;

student    system        system_distributed  system_traces  system_virtual_schema
students   system_auth   system_schema       system_views

cqlsh:student> create table student_profile(rollno int primary key,studname
           ... text,dateofjoining timestamp,lastexampercent int);
cqlsh:student> begin batch
           ... insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(1,'Sakshi','2020-10-07',90)
           ... insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(2,'Shreya','2020-1-07',88)
           ... apply batch
           ... apply batch;
SyntaxException: line 6:0 mismatched input 'apply' expecting EOF (...,'2020-1-07',88)apply batch[apply]...)
cqlsh:student> select *from student_profile;

 rollno | dateofjoining | lastexampercent | studname
--------+---------------+-----------------+---------

(0 rows)
cqlsh:student> begin batch insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(1,'Sakshi','2020-10-07',90) insert into student_profile(rollno,studname,dateofjoining,lastexamp
ercent)values(2,'Shreya','2020-1-07',88) apply batch apply batch;
SyntaxException: line 1:241 mismatched input 'apply' expecting EOF (...,'2020-1-07',88) apply batch [apply]...)
cqlsh:student> begin batch
           ... insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(1,'Sakshi','2020-10-07',90)
           ... insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(2,'Shreya','2020-1-07',88)
           ... apply batch;
InvalidRequest: Error from server: code=2200 [Invalid query] message="Unable to parse a date/time from '2020-1-07'"
cqlsh:student> begin batch insert into student_profile(rollno,studname,dateofjoining,lastexampercent)values(1,'Sakshi','2020-10-07',90) insert into student_profile(rollno,studname,dateofjoining,lastexamp
ercent)values(2,'Shreya','2020-11-07',88) apply batch;
cqlsh:student> select *from student_profile;

 rollno | dateofjoining                   | lastexampercent | studname
--------+---------------------------------+-----------------+---------
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi
      2 | 2020-11-07 08:00:00.000000+0000 |              88 |   Shreya

(2 rows)
cqlsh:student> g
```

```
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi

(1 rows)
cqlsh:student> create index on student_profile(studname);
cqlsh:student> select rollno,lastexampercent from student_profile where studname='Sakshi';

 rollno | lastexampercent
--------+----------------
      1 |              90

(1 rows)
cqlsh:student> select rollno,lastexampercent from student_profile limit 1;

 rollno | lastexampercent
--------+----------------
      1 |              90

(1 rows)
cqlsh:student> select rollno,studname as "name" from student_profile;

 rollno | name
--------+--------
      1 | Sakshi
      2 |  Sneha

(2 rows)
cqlsh:student> delete lastexampercent from student
           ...
cqlsh:student> delete lastexampercent from student_profile where rollno=1;
cqlsh:student> select *from student_profile;

 rollno | dateofjoining                   | lastexampercent | studname
--------+---------------------------------+-----------------+---------
      1 | 2020-10-07 07:00:00.000000+0000 |            null |   Sakshi
      2 | 2020-11-07 08:00:00.000000+0000 |              88 |    Sneha

(2 rows)
cqlsh:student> delete from student
           ...
cqlsh:student> delete from student_profile where rollno=1;
cqlsh:student> select *from student_profile;

 rollno | dateofjoining                   | lastexampercent | studname
--------+---------------------------------+-----------------+---------
      2 | 2020-11-07 08:00:00.000000+0000 |              88 |    Sneha

(1 rows)
```

```
              1 | 2020-10-07 07:00:00.000000+0000 |               90 |     Sakshi
              2 | 2020-11-07 08:00:00.000000+0000 |               88 |     Shreya

(2 rows)
cqlsh:student> update student_profile set studname="Sneha' where rollno=2;
        ... select *from student_profile;
        ...
cqlsh:student> update student_profile set studname='Sneha' where rollno=2;
cqlsh:student> select *from student_profile;

 rollno | dateofjoining                   | lastexampercent | studname
--------+---------------------------------+-----------------+----------
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi
      2 | 2020-11-07 08:00:00.000000+0000 |              88 |    Sneha

(2 rows)
cqlsh:student> select *from student_profile where rollno in (1);

 rollno | dateofjoining                   | lastexampercent | studname
--------+---------------------------------+-----------------+----------
      1 | 2020-10-07 07:00:00.000000+0000 |              90 |   Sakshi

(1 rows)
cqlsh:student> create index on student_profile(studname);
cqlsh:student> select rollno,lastexampercent from student_profile where studname='Sakshi';

 rollno | lastexampercent
--------+-----------------
      1 |              90

(1 rows)
cqlsh:student> select rollno,lastexampercent from student_profile limit 1;

 rollno | lastexampercent
--------+-----------------
      1 |              90

(1 rows)
cqlsh:student> select rollno,studname as "name" from student_profile;

 rollno | name
--------+--------
      1 | Sakshi
      2 |  Sneha

(2 rows)
cqlsh:student> delete lastexampercent from student
```

Program 2: Employee Database(Cassandra)

cqlsh:employee_info> begin batch

      ... insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(101,'Sakshi','manager','2020-09-08',35000,'testing')

      ... insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(201,'Sneha','manager','2020-08-08',85000,'development')

      ... insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(201,'Shreya','associate','2020-07-08',75000,'HR')

      ... apply batch;

cqlsh:employee_info> select *from employee_details;

emp_id	salary	dept_name	designation	doj	emp_name
201	75000	HR	associate	2020-07-08 07:00:00.000000+0000	Shreya
201	85000	development	manager	2020-08-08 07:00:00.000000+0000	Sneha
101	35000	testing	manager	2020-09-08 07:00:00.000000+0000	Sakshi

(3 rows)

cqlsh:employee_info> delete from employee_details where emp_id=201;

cqlsh:employee_info> select *from employee_details;

emp_id	salary	dept_name	designation	doj	emp_name
101	35000	testing	manager	2020-09-08 07:00:00.000000+0000	Sakshi

(1 rows)

cqlsh:employee_info> begin batch insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(301,'Sneha','manager','2020-08-08',85000,'development') insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(201,'Shreya','associate','2020-07-08',75000,'HR') apply batch;

```
cqlsh:employee_info> select *from employee_details;


 emp_id | salary | dept_name   | designation | doj                             | emp_name

--------+--------+-------------+-------------+-------------------------------+----------

    201 |  75000 |        HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya

    101 |  35000 |   testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi

    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha


(3 rows)
```

cqlsh:employee_info> alter table employee_details add project text;

cqlsh:employee_info> update employee_details set project='library app' where emp_id=201 and salary=75000;

cqlsh:employee_info> update employee_details set project='medicine app' where emp_id=301 and salary=85000;

cqlsh:employee_info> update employee_details set project='fitness app' where emp_id=101 and salary=85000;

cqlsh:employee_info> select *from employee_details;

```
 emp_id | salary | dept_name   | designation | doj                             | emp_name | project

--------+--------+-------------+-------------+-------------------------------+----------+--------------

    201 |  75000 |        HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya |  library app

    101 |  35000 |   testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi |       null

    101 |  85000 |      null |      null |                         null |     null |  fitness app

    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha |
medicine app


(4 rows)
```

cqlsh:employee_info> update employee_details set project='fitness app' where emp_id=101 and salary=35000;

cqlsh:employee_info> select *from employee_details;

```
 emp_id | salary | dept_name   | designation | doj                             | emp_name | project

--------+--------+-------------+-------------+-------------------------------+----------+--------------
```

```
   201 |  75000 |         HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya |  library app

   101 |  35000 |    testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi |  fitness app

   101 |  85000 |       null |        null |                            null |     null |  fitness app

   301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha |
medicine app
```

(4 rows)

cqlsh:employee_info> delete from employee_details where emp_id=1 and salary=85000;

cqlsh:employee_info> select *from employee_details;

```
 emp_id | salary | dept_name   | designation | doj                             | emp_name | project

--------+--------+-------------+-------------+---------------------------------+----------+-------------

   201 |  75000 |         HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya |  library app

   101 |  35000 |    testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi |  fitness app

   101 |  85000 |       null |        null |                            null |     null |  fitness app

   301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha |
medicine app
```

(4 rows)

cqlsh:employee_info> select *from employee_details;

```
 emp_id | salary | dept_name   | designation | doj                             | emp_name | project

--------+--------+-------------+-------------+---------------------------------+----------+-------------

   201 |  75000 |         HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya |  library app

   101 |  35000 |    testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi |  fitness app

   401 |  65000 |    testing |     manager | 2020-05-08 07:00:00.000000+0000 |     Resh |        null

   301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha |
medicine app
```

(4 rows)

cqlsh:employee_info> insert into
employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manage
r','2020-04-08',95000,'testing') using ttl 30;

cqlsh:employee_info> select ttl(emp_name)from employee_details where emp_id=501 and salary=95000;

 ttl(emp_name)

         24

(1 rows)

cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name | designation | doj | emp_name | project

--------+--------+-------------+-------------+----------------------------+----------+-------------

    201 | 75000 | HR | associate | 2020-07-08 07:00:00.000000+0000 | Shreya | library app

    101 | 35000 | testing | manager | 2020-09-08 07:00:00.000000+0000 | Sakshi | fitness app

    401 | 65000 | testing | manager | 2020-05-08 07:00:00.000000+0000 | Resh | null

    301 | 85000 | development | manager | 2020-08-08 07:00:00.000000+0000 | Sneha | medicine app

(4 rows)

cqlsh:employee_info> paging off

Disabled Query paging.

cqlsh:employee_info> select *from employee_details where emp_id in(201,101,301) order by salary;

 emp_id | salary | dept_name | designation | doj | emp_name | project

--------+--------+-------------+-------------+----------------------------+----------+-------------

    101 | 35000 | testing | manager | 2020-09-08 07:00:00.000000+0000 | Sakshi | fitness app

    201 | 75000 | HR | associate | 2020-07-08 07:00:00.000000+0000 | Shreya | library app

    301 | 85000 | development | manager | 2020-08-08 07:00:00.000000+0000 | Sneha | medicine app

```
                 201 |   75000 |               HR |   associate | 2020-07-08 07:00:00.000000+0000 |        Shreya
                 201 |   85000 | development |      manager | 2020-08-08 07:00:00.000000+0000 |         Sneha
                 101 |   35000 |        testing |      manager | 2020-09-08 07:00:00.000000+0000 |        Sakshi

(3 rows)
cqlsh:employee_info> update employee_details set emp_id=301 where emp_name='Sneha';
InvalidRequest: Error from server: code=2200 [Invalid query] message="PRIMARY KEY part emp_id found in SET part"
cqlsh:employee_info> delete from employee
            ... -de
cqlsh:employee_info> delete from employee_details where emp_name='Sneha';
InvalidRequest: Error from server: code=2200 [Invalid query] message="Some partition key parts are missing: emp_id"
cqlsh:employee_info> delete from employee_details where emp-id=201;
SyntaxException: line 1:40 mismatched character 'd' expecting set null
cqlsh:employee_info> delete from employee_details where emp_id=201;
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name | designation | doj                             | emp_name
--------+--------+-----------+-------------+---------------------------------+----------
    101 |  35000 |   testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi

(1 rows)
cqlsh:employee_info> begin batch insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(301,'Sneha','manager','2020-08-08',85000,'development') insert into employee_details(
emp_id,emp_name,designation,doj,salary,dept_name)values(201,'Shreya','associate','2020-07-08',75000,'HR') apply batch;
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name
--------+--------+-------------+-------------+---------------------------------+----------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha

(3 rows)
cqlsh:employee_info> alter table employee_details add project text;
cqlsh:employee_info> update employee_details set project='library app' where emp_id=201 and salary=75000;
cqlsh:employee_info> update employee_details set project='medicine app' where emp_id=301 and salary=85000;
cqlsh:employee_info> update employee_details set project='fitness app' where emp_id=101 and salary=85000;
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi |        null
    101 |  85000 |        null |        null |                            null |     null | fitness app
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(4 rows)
```

```
 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    101 |  85000 |        null |        null |                            null |     null | fitness app
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(4 rows)
cqlsh:employee_info> delete from employee_details where emp_id=101 and salary=85000;
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(3 rows)
cqlsh:employee_info> begin batch insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(401,'Resh','manager','2020-05-08',65000,'testing')
            ... apply batch;
cqlsh:employee_info> begin batch insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manager','2020-04-08',95000,'testing') using ttl 30;
            ...
cqlsh:employee_info> insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manager','2020-04-08',95000,'testing') using ttl 30;
cqlsh:employee_info> select ttl(emp_name)from employee_details where emp_id=501 and salary=95000;

 ttl(emp_name)
---------------

(0 rows)
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    401 |  65000 |     testing |     manager | 2020-05-08 07:00:00.000000+0000 |     Resh |        null
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(4 rows)
cqlsh:employee_info> insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manager','2020-04-08',95000,'testing') using ttl 30;
cqlsh:employee_info> select ttl(emp_name)from employee_details where emp_id=501 and salary=95000;

 ttl(emp_name)
---------------
            24

(1 rows)
```
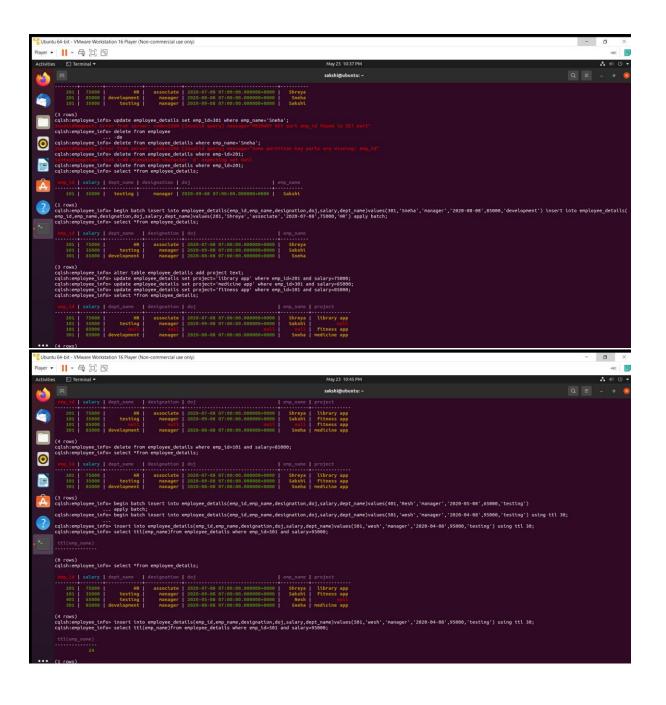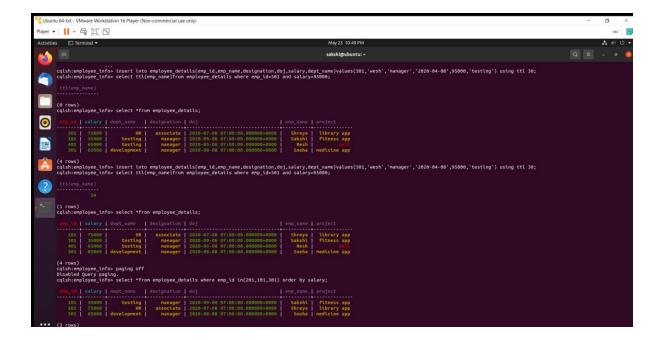
sakshi@ubuntu: ~

```
                  ...
cqlsh:employee_info> insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manager','2020-04-08',95000,'testing') using ttl 30;
cqlsh:employee_info> select ttl(emp_name)from employee_details where emp_id=501 and salary=95000;

 ttl(emp_name)
---------------

(0 rows)
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    401 |  65000 |     testing |     manager | 2020-05-08 07:00:00.000000+0000 |     Resh |        null
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(4 rows)
cqlsh:employee_info> insert into employee_details(emp_id,emp_name,designation,doj,salary,dept_name)values(501,'wesh','manager','2020-04-08',95000,'testing') using ttl 30;
cqlsh:employee_info> select ttl(emp_name)from employee_details where emp_id=501 and salary=95000;

 ttl(emp_name)
---------------
            24

(1 rows)
cqlsh:employee_info> select *from employee_details;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    401 |  65000 |     testing |     manager | 2020-05-08 07:00:00.000000+0000 |     Resh |        null
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(4 rows)
cqlsh:employee_info> paging off
Disabled Query paging.
cqlsh:employee_info> select *from employee_details where emp_id in(201,101,301) order by salary;

 emp_id | salary | dept_name   | designation | doj                             | emp_name | project
--------+--------+-------------+-------------+---------------------------------+----------+-------------
    101 |  35000 |     testing |     manager | 2020-09-08 07:00:00.000000+0000 |   Sakshi | fitness app
    201 |  75000 |          HR |   associate | 2020-07-08 07:00:00.000000+0000 |   Shreya | library app
    301 |  85000 | development |     manager | 2020-08-08 07:00:00.000000+0000 |    Sneha | medicine app

(3 rows)
```

Program 3: Library Database(Cassandra)

cqlsh> use library_info;

cqlsh:library_info> create table library_details(stud_id int,counter_value

    ... counter,stud_name text,book_name text,date_of_issue timestamp,book_id

    ... int,primary key(stud_id,stud_name,book_name,date_of_issue,book_id));

cqlsh:library_info> update library_details set counter_value=counter_value+1

    ... where stud_id=111 and stud_name='sam' and book_name='ML' and

    ... date_of_issue='2020-11-09' and book_id=200;

cqlsh:library_info> select *from library_details;

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	sam	ML	2020-11-09 08:00:00.000000+0000	200	1

(1 rows)

cqlsh:library_info> update library_details set counter_value=counter_value+1 where stud_id=112 and stud_name='sakshi' and book_name='BDA' and date_of_issue='2020-01-01' and book_id=300;

cqlsh:library_info> update library_details set counter_value=counter_value+1 where stud_id=115 and stud_name='aditya' and book_name='OOMD' and date_of_issue='2020-06-01' and book_id=400;

cqlsh:library_info> select *from library_details;

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	sam	ML	2020-11-09 08:00:00.000000+0000	200	1
112	sakshi	BDA	2020-01-01 08:00:00.000000+0000	300	1
115	aditya	OOMD	2020-06-01 07:00:00.000000+0000	400	1

qlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) to 'C:\Desktop\sample.csv';
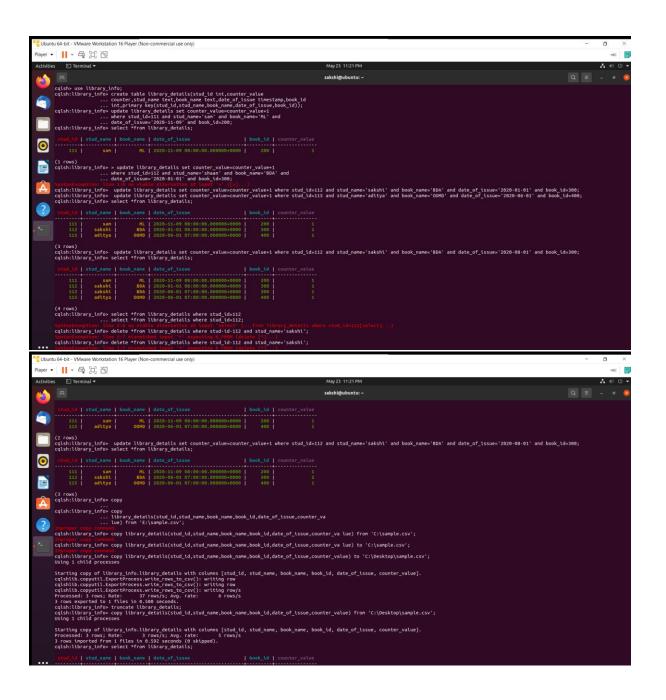
Using 1 child processes

Starting copy of library_info.library_details with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].

cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row

cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row

cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row/s

Processed: 3 rows; Rate: 37 rows/s; Avg. rate: 6 rows/s

3 rows exported to 1 files in 0.500 seconds.

cqlsh:library_info> truncate library_details;

cqlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) from 'C:\Desktop\sample.csv';

Using 1 child processes

Starting copy of library_info.library_details with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].

Processed: 3 rows; Rate: 3 rows/s; Avg. rate: 5 rows/s

3 rows imported from 1 files in 0.592 seconds (0 skipped).

cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue | book_id | counter_value
---------+-----------+-----------+------------------------------+---------+--------------
   111 | sam | ML | 2020-11-09 08:00:00.000000+0000 | 200 | 1
   112 | sakshi | BDA | 2020-08-01 07:00:00.000000+0000 | 300 | 2
   115 | aditya | OOMD | 2020-06-01 07:00:00.000000+0000 | 400 | 1

```
cqlsh> use library_info;
cqlsh:library_info> create table library_details(stud_id int,counter_value
               ... counter,stud_name text,book_name text,date_of_issue timestamp,book_id
               ... int,primary key(stud_id,stud_name,book_name,date_of_issue,book_id));
cqlsh:library_info> update library_details set counter_value=counter_value+1
               ... where stud_id=111 and stud_name='sam' and book_name='ML' and
               ... date_of_issue='2020-11-09' and book_id=200;
cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
     111 |       sam |        ML | 2020-11-09 08:00:00.000000+0000 |     200 |             1

(1 rows)
cqlsh:library_info> > update library_details set counter_value=counter_value+1
               ... where stud_id=112 and stud_name='shaan' and book_name='BDA' and
               ... date_of_issue='2020-01-01' and book_id=300;
SyntaxException: line 1:0 no viable alternative at input '>' ([>]...)
cqlsh:library_info>  update library_details set counter_value=counter_value+1 where stud_id=112 and stud_name='sakshi' and book_name='BDA' and date_of_issue='2020-01-01' and book_id=300;
cqlsh:library_info>  update library_details set counter_value=counter_value+1 where stud_id=115 and stud_name='aditya' and book_name='OOMD' and date_of_issue='2020-06-01' and book_id=400;
cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
     111 |       sam |        ML | 2020-11-09 08:00:00.000000+0000 |     200 |             1
     112 |    sakshi |       BDA | 2020-01-01 08:00:00.000000+0000 |     300 |             1
     115 |    aditya |      OOMD | 2020-06-01 07:00:00.000000+0000 |     400 |             1

(3 rows)
cqlsh:library_info>  update library_details set counter_value=counter_value+1 where stud_id=112 and stud_name='sakshi' and book_name='BDA' and date_of_issue='2020-08-01' and book_id=300;
cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
     111 |       sam |        ML | 2020-11-09 08:00:00.000000+0000 |     200 |             1
     112 |    sakshi |       BDA | 2020-08-01 07:00:00.000000+0000 |     300 |             1
     112 |    sakshi |       BDA | 2020-01-01 08:00:00.000000+0000 |     300 |             1
     115 |    aditya |      OOMD | 2020-06-01 07:00:00.000000+0000 |     400 |             1

(4 rows)
cqlsh:library_info> select *from library_details where stud_id=112
               ... select *from library_details where stud_id=112[select]...]
SyntaxException: line 2:0 no viable alternative at input 'select' (...from library_details where stud_id=112[select]...)
cqlsh:library_info> delete *from library_details where stud-id-112 and stud_name='sakshi'
SyntaxException: line 1:7 mismatched input '*' expecting K_FROM (delete [*]...)
cqlsh:library_info> delete *from library_details where stud-id-112 and stud_name='sakshi';
SyntaxException: line 1:7 mismatched input '*' expecting K_FROM (delete [*]...)
```

```
 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
     111 |       sam |        ML | 2020-11-09 08:00:00.000000+0000 |     200 |             1
     115 |    aditya |      OOMD | 2020-06-01 07:00:00.000000+0000 |     400 |             1

(2 rows)
cqlsh:library_info>  update library_details set counter_value=counter_value+1 where stud_id=112 and stud_name='sakshi' and book_name='BDA' and date_of_issue='2020-08-01' and book_id=300;
cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
     111 |       sam |        ML | 2020-11-09 08:00:00.000000+0000 |     200 |             1
     112 |    sakshi |       BDA | 2020-08-01 07:00:00.000000+0000 |     300 |             2
     115 |    aditya |      OOMD | 2020-06-01 07:00:00.000000+0000 |     400 |             1

(3 rows)
cqlsh:library_info> copy
               ...
cqlsh:library_info> copy
               ... library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_va
               ... lue) from 'E:\sample.csv';
Improper copy command.
cqlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_va lue) from 'C:\sample.csv';
Improper copy command.
cqlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_va lue) to 'C:\sample.csv';
Improper copy command.
cqlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) to 'C:\Desktop\sample.csv';
Using 1 child processes

Starting copy of library_info.library_details with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].
cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row
cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row
cqlshlib.copyutil.ExportProcess.write_rows_to_csv(): writing row/s
Processed: 3 rows; Rate:      37 rows/s; Avg. rate:      6 rows/s
3 rows exported to 1 files in 0.500 seconds.
cqlsh:library_info> truncate library_details;
cqlsh:library_info> copy library_details(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) from 'C:\Desktop\sample.csv';
Using 1 child processes

Starting copy of library_info.library_details with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].
Processed: 3 rows; Rate:       3 rows/s; Avg. rate:      5 rows/s
3 rows imported from 1 files in 0.592 seconds (0 skipped).
cqlsh:library_info> select *from library_details;

 stud_id | stud_name | book_name | date_of_issue                   | book_id | counter_value
---------+-----------+-----------+---------------------------------+---------+---------------
```

Program 4: MongoDb sample program

> use students

switched to db students

> db.createCollection("stud_details")

{ "ok" : 1 }

>
db.stud_details.insert({'name':'Sakshi','rollno':1,'age':19,'contactno':'8670794779','email':'sakshi@bmsce.ac.in'})

WriteResult({ "nInserted" : 1 })

>
db.stud_details.insert({'name':'Sneha','rollno':2,'age':20,'contactno':'8670794789','email':'sneha@bmsce.ac.in'})

WriteResult({ "nInserted" : 1 })

>
db.stud_details.insert({'name':'Shruti','rollno':3,'age':21,'contactno':'8630394789','email':'shruti@bmsce.ac.in'})

WriteResult({ "nInserted" : 1 })

> db.stud_details.find({})

{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }

> db.student_details.update({'rollno':3},{$set:{'email':'update@lab.com'}})

WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })

> db.stud_details.find({'rollno':3})

{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }

mongoexport --db students --collection stud_details --out C:\Desktop\sample.json

2021-05-22T10:43:30.687+0530 connected to: mongodb://localhost/ 2021-05-22T10:43:31.026+0530 exported 3 records

mongoimport --db students --collection stud_details --type=json --file= C:\Desktop\sample.json

2021-05-22T10:46:49.898+0530 connected to: mongodb://localhost/ 2021-05-22T10:46:50.044+0530 3 document(s) imported successfully. 0 document(s) failed to import.

db.stud_details.find({})

{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }

> db.student_details.remove({age:{$gt:20}})

WriteResult({ "nRemoved" : 0 })

> db.stud_details.find({})

{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }

{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }

```
---
> use student
switched to db student
> db.createCollection("details")
{
        "ok" : 0,
        "errmsg" : "db already exists with different case already have: [Student] trying to create [student]",
        "code" : 13297,
        "codeName" : "DatabaseDifferCase"
}
> db.createCollection("detail")
{
        "ok" : 0,
        "errmsg" : "db already exists with different case already have: [Student] trying to create [student]",
        "code" : 13297,
        "codeName" : "DatabaseDifferCase"
}
> db.createCollection("details")
{
        "ok" : 0,
        "errmsg" : "db already exists with different case already have: [Student] trying to create [student]",
        "code" : 13297,
        "codeName" : "DatabaseDifferCase"
}
> clear
uncaught exception: ReferenceError: clear is not defined :
@(shell):1:1
> exot
uncaught exception: ReferenceError: exot is not defined :
@(shell):1:1
> use students
switched to db students
> createcollection("stud_details")
uncaught exception: ReferenceError: createcollection is not defined :
@(shell):1:1
> db.createCollection("stud_details")
{ "ok" : 1 }
> db.stud_details.insert({'name':'Sakshi','rollno':1,'age':19,'contactno':'8670794779','email':'sakshi@bmsce.ac.in'})
WriteResult({ "nInserted" : 1 })
> db.stud_details.insert({'name':'Sneha','rollno':2,'age':20,'contactno':'8670794789','email':'sneha@bmsce.ac.in'})
WriteResult({ "nInserted" : 1 })
> db.stud_details.insert({'name':'Shruti','rollno':3,'age':21,'contactno':'8630394789','email':'shruti@bmsce.ac.in'})
WriteResult({ "nInserted" : 1 })
> db.stud_details.find({})
{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }
> db.student_details.update({'rollno':3},{$set:{'email':'update@lab.com'}})
```

```
> db.student_details.find({})
> db.stud_details.find({})
{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }
> db.student_details.remove({age:{$gt:20}})
WriteResult({ "nRemoved" : 0 })
> db.stud_details.find({})
{ "_id" : ObjectId("60aaabf1b1aea56bb97beef8"), "name" : "Sakshi", "rollno" : 1, "age" : 19, "contactno" : "8670794779", "email" : "sakshi@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac16b1aea56bb97beef9"), "name" : "Sneha", "rollno" : 2, "age" : 20, "contactno" : "8670794789", "email" : "sneha@bmsce.ac.in" }
{ "_id" : ObjectId("60aaac41b1aea56bb97beefa"), "name" : "Shruti", "rollno" : 3, "age" : 21, "contactno" : "8630394789", "email" : "shruti@bmsce.ac.in" }
>
```