LAB -2

Perform the following DB operations using Cassandra.

1. Create a keyspace by name Employee

```
create keyspace employee with replication = {
  ... 'class':'SimpleStrategy',
  ... 'replication_factor':1};
cqlsh> use employee;
```

2. Create a column family by name Employee-Info with attributes Emp_Id Primary Key, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name

```
create table employee_info( emp_id int, emp_name text, designation text,
date_of_joining timestamp, salary double, dept_name text, PRIMARY KEY(emp_id));
```

3. Insert the values into the table in batch

```
begin batch  insert into
employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)
values (1,'Prema','CEO','2022-06-23',70000,'Overall') insert into
employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)
values (12,'Sahana','CTO','2022-06-25',50000,'Developer') insert into employee_info(e
mp_id,emp_name,designation,date_of_joining,salary,dept_name) values
(121,'Pratiksha','ABC','2022-06-25',80000,'Developer') insert into
employee_info(emp_id,emp_name,designa
tion,date_of_joining,salary,dept_name)values (112,'Pooja','CTO','2022-06-
25',50000,'Developer') apply batch ;
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | designation | emp_name  | salary
--------+---------------------------------+-----------+-------------+-----------+--------
      1 | 2022-06-22 18:30:00.000000+|   Overall |         CEO |     Prema |  70000
    121 | 2022-06-24 18:30:00.000000+ | Developer |         ABC | Pratiksha |  80000
    112 | 2022-06-24 18:30:00.000000+| Developer |         CTO |     Pooja |  50000
     12 | 2022-06-24 18:30:00.000000+ | Developer |         CTO |    Sahana |  50000
```

4. Update Employee name and Department of Emp-Id 121

```
cqlsh:employee> update employee_info
           ... set emp_name = 'Jayshree', dept_name='Sales'
           ... where emp_id=112;
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | designation | emp_name  | salary
--------+---------------------------------+-----------+-------------+-----------+--------
      1 | 2022-06-22 18:30:00.000000+0000 |   Overall |         CEO |     Prema |  70000
    121 | 2022-06-24 18:30:00.000000+0000 | Developer |         ABC | Pratiksha |  80000
    112 | 2022-06-24 18:30:00.000000+0000 |     Sales |         CTO |  Jayshree |  50000
     12 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |    Sahana |  50000
```

5. Sort the details of Employee records based on salary

```
cqlsh:employee> begin batch insert into employee_infonew(emp_id,emp_name,designation,date_of_joining,salary,dept_name) values (12,'Sahana','CTO','2022-06-25',50000,'Develo
er') insert into employee_infonew(emp_id,emp_name,designation,date_of_joining,salary,dept_name) values (121,'Pratiksha','ABC','2022-06-25',80000,'Developer') insert into e
ployee_infonew(emp_id,emp_name,designation,date_of_joining,salary,dept_name)values (112,'Pooja','CTO','2022-06-25',50000,'Developer') apply batch ;
cqlsh:employee> select * from employee_infonew ;

 emp_id | salary | date_of_joining                 | dept_name | designation | emp_name
--------+--------+---------------------------------+-----------+-------------+-----------
      1 |  70000 | 2022-06-22 18:30:00.000000+0000 |   Overall |         CEO |     Prema
    121 |  80000 | 2022-06-24 18:30:00.000000+0000 | Developer |         ABC | Pratiksha
    112 |  50000 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |     Pooja
     12 |  50000 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |    Sahana

(4 rows)
cqlsh:employee> paging off;
Query paging is not enabled.
cqlsh:employee> paging off;
Query paging is not enabled.
cqlsh:employee> select * from employee_infonew where emp_id in (1,121,112,12) order by salary desc;

 emp_id | salary | date_of_joining                 | dept_name | designation | emp_name
--------+--------+---------------------------------+-----------+-------------+-----------
    121 |  80000 | 2022-06-24 18:30:00.000000+0000 | Developer |         ABC | Pratiksha
      1 |  70000 | 2022-06-22 18:30:00.000000+0000 |   Overall |         CEO |     Prema
     12 |  50000 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |    Sahana
    112 |  50000 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |     Pooja
```

6. Alter the schema of the table Employee_Info to add a column Projects which stores a set of Projects done by the corresponding Employee.

alter table employee_info add project_names set<text>;

7. Update the altered table to add project names.

```
cqlsh:employee> update employee_info  set project_names = project_names + {'Project1','p2'}  where emp_id =1;
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | designation | emp_name  | project_names      | salary
--------+---------------------------------+-----------+-------------+-----------+--------------------+--------
      1 | 2022-06-22 18:30:00.000000+0000 |   Overall |         CEO |     Prema | {'Project1', 'p2'} |  70000
    121 | 2022-06-24 18:30:00.000000+0000 | Developer |         ABC | Pratiksha |               null |  80000
    112 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |     Pooja |               null |  50000
     12 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |    Sahana |               null |  50000

(4 rows)
cqlsh:employee> update employee_info  set project_names = project_names + {'q1','q2'}  where emp_id =121;
cqlsh:employee> update employee_info  set project_names = project_names + {'s1','s2'}  where emp_id =112;
cqlsh:employee> update employee_info  set project_names = project_names + {'m1','m2'}  where emp_id =12;
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | designation | emp_name  | project_names      | salary
--------+---------------------------------+-----------+-------------+-----------+--------------------+--------
      1 | 2022-06-22 18:30:00.000000+0000 |   Overall |         CEO |     Prema | {'Project1', 'p2'} |  70000
    121 | 2022-06-24 18:30:00.000000+0000 | Developer |         ABC | Pratiksha |       {'q1', 'q2'} |  80000
    112 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |     Pooja |       {'s1', 's2'} |  50000
     12 | 2022-06-24 18:30:00.000000+0000 | Developer |         CTO |    Sahana |       {'m1', 'm2'} |  50000
```

8. Create a TTL of 15 seconds to display the values of Employee

```
cqlsh:employee> insert into employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name) values(171,'Tyax','CEO','2023-08-29',57000,'Managing') USING TTL 700
;
cqlsh:employee> select ttl(emp_name) from employee_info where emp_id=171;

 ttl(emp_name)
---------------
           634

(1 rows)
```