Perform the following DB operations using Cassandra.
1. Create a key space 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 PRIMARY KEY,Emp_name
text,Date_of_Joining timestamp,Salary float,Dept_Name text) ;
```

3. Insert the values into the table in batch

```
cqlsh:employee> begin batch
          ... insert into
Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_N
ame) values(1,'Nithin','2021-04-23',50000,'CSE')
          ...  insert into
Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_N
ame) values(2,'Tarun','2020-06-21',10000,'ISE')
          ...  insert into
Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_N
ame) values(3,'Suresh','2011-02-12',30000,'ECE')
          ...  insert into
Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_N
ame) values(4,'Yuresh','2015-09-02',90000,'EEE')
```

... insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_Name) values(5,'Dharmesh','2016-01-09',70000,'CSE')

... apply batch;

```
cqlsh> create keyspace Employee with replication = {'class':'SimpleStrategy'
,'replication_factor':1};
cqlsh> use Employee
   ... ;
cqlsh:employee> create table Employee_Info(Emp_id int PRIMARY KEY,Emp_name t
ext,Date_of_Joining timestamp,Salary float,Dept_Name text);
cqlsh:employee> begin batch
           ... insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,Sa
lary,Dept_Name) values(1,'Nithin','2021-04-23',50000,'CSE')
           ...  insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,S
alary,Dept_Name) values(2,'Tarun','2020-06-21',10000,'ISE')
           ...  insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,S
alary,Dept_Name) values(3,'Suresh','2011-02-12',30000,'ECE')
           ...  insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,S
alary,Dept_Name) values(4,'Yuresh','2015-09-02',90000,'EEE')
           ...  insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,S
alary,Dept_Name) values(5,'Dharmesh','2016-01-09',70000,'CSE')
           ... apply batch;
cqlsh:employee> select * from Employee_info;

 emp_id | date_of_joining                 | dept_name | emp_name | salary
--------+---------------------------------+-----------+----------+--------
      5 | 2016-01-09 00:00:00.000000+0000 |       CSE | Dharmesh |  70000
      1 | 2021-04-23 00:00:00.000000+0000 |       CSE |   Nithin |  50000
      2 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun |  10000
      4 | 2015-09-02 00:00:00.000000+0000 |       EEE |   Yuresh |  90000
      3 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh |  30000
```

4. Update Employee name and Department of Emp-Id 1

update employee_info set Dept_Name='Mech',emp_name='Sreekar' where emp_id=1;

cqlsh:employee> select * from employee_info;

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

 emp_id | date_of_joining                 | dept_name | emp_name | salary
--------+---------------------------------+-----------+----------+--------
      5 | 2016-01-09 00:00:00.000000+0000 |       CSE | Dharmesh |  70000
      1 | 2021-04-23 00:00:00.000000+0000 |      Mech |  Sreekar |  50000
      2 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun |  10000
      4 | 2015-09-02 00:00:00.000000+0000 |       EEE |   Yuresh |  90000
      3 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh |  30000

(5 rows)
```

5. Sort the details of Employee records based on salary

```
(0 rows)
cqlsh:employee> begin batch
           ... insert into Employee_information(Emp_id,Emp_name,Date_of_Joi
ning,Salary,Dept_Name) values(1,'Nithin','2021-04-23',50000,'CSE')
           ... insert into Employee_information(Emp_id,Emp_name,Date_of_Joi
ning,Salary,Dept_Name) values(2,'Tarun','2020-06-21',10000,'ISE')
           ... insert into Employee_information(Emp_id,Emp_name,Date_of_Joi
ning,Salary,Dept_Name) values(3,'Suresh','2011-02-12',30000,'ECE')
           ... apply batch;
cqlsh:employee> select * from Employee_information;

 emp_id | salary | date_of_joining                 | dept_name | emp_name
--------+--------+---------------------------------+-----------+----------
      1 |  50000 | 2021-04-23 00:00:00.000000+0000 |       CSE |   Nithin
      2 |  10000 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun
      3 |  30000 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh

(3 rows)
cqlsh:employee> describe Employee_information;

CREATE TABLE employee.employee_information (
    emp_id int,
    salary float,
    date_of_joining timestamp,
    dept_name text,
    emp_name text,
    PRIMARY KEY (emp_id, salary)
) WITH CLUSTERING ORDER BY (salary ASC)
```

cqlsh:employee> select * from Employee_information where emp_id in (1,2,3) order by Salary;

```
cqlsh:employee> paging off
Disabled Query paging.
cqlsh:employee> select * from Employee_information where emp_id in (1,2,3) o
rder by Salary;

 emp_id | salary | date_of_joining                 | dept_name | emp_name
--------+--------+---------------------------------+-----------+----------
      2 |  10000 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun
      3 |  30000 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh
      1 |  50000 | 2021-04-23 00:00:00.000000+0000 |       CSE |   Nithin

(3 rows)
```

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.

```
cqlsh:employee> alter table employee_info add projects set<text>;
```

7. Update the altered table to add project names.

```
cqlsh:employee> update employee_info set projects=projects+{'project1','project2','project3'} where emp_id=1;
```

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

 emp_id | date_of_joining                 | dept_name | emp_name | projects                                  | salary
--------+---------------------------------+-----------+----------+-------------------------------------------+--------
      5 | 2016-01-09 00:00:00.000000+0000 |       CSE | Dharmesh |                                      null |  70000
      1 | 2021-04-23 00:00:00.000000+0000 |      Mech |  Sreekar | {'project1', 'project2', 'project3'} |  50000
      2 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun |                                      null |  10000
      4 | 2015-09-02 00:00:00.000000+0000 |       EEE |   Yuresh |                                      null |  90000
      3 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh |                                      null |  30000

(5 rows)
```

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

```
cqlsh:employee> begin batch
           ... insert into Employee_Info(Emp_id,Emp_name,Date_of_Joining,Salary,Dept_Name) values(6,'Rahul','2021-05-03',10000,'ISE') USING TTL 15;
           ... apply batch;
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | emp_name | projects                                  | salary
--------+---------------------------------+-----------+----------+-------------------------------------------+--------
      5 | 2016-01-09 00:00:00.000000+0000 |       CSE | Dharmesh |                                      null |  70000
      1 | 2021-04-23 00:00:00.000000+0000 |      Mech |  Sreekar | {'project1', 'project2', 'project3'} |  50000
      2 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun |                {'project4', 'project5'} |  10000
      4 | 2015-09-02 00:00:00.000000+0000 |       EEE |   Yuresh |                                      null |  90000
      6 | 2021-05-03 00:00:00.000000+0000 |       ISE |    Rahul |                                      null |  10000
      3 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh |                                      null |  30000

(6 rows)
cqlsh:employee> select * from employee_info;

 emp_id | date_of_joining                 | dept_name | emp_name | projects                                  | salary
--------+---------------------------------+-----------+----------+-------------------------------------------+--------
      5 | 2016-01-09 00:00:00.000000+0000 |       CSE | Dharmesh |                                      null |  70000
      1 | 2021-04-23 00:00:00.000000+0000 |      Mech |  Sreekar | {'project1', 'project2', 'project3'} |  50000
      2 | 2020-06-21 00:00:00.000000+0000 |       ISE |    Tarun |                {'project4', 'project5'} |  10000
      4 | 2015-09-02 00:00:00.000000+0000 |       EEE |   Yuresh |                                      null |  90000
      3 | 2011-02-12 00:00:00.000000+0000 |       ECE |   Suresh |                                      null |  30000

(5 rows)
```