LAB 4

Perform the following DB operations using Cassandra.

1. Create a keyspace by name Employee

```
bmscecse@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$ cqlsh
Connected to Test Cluster at 127.0.0.1:9042
[cqlsh 6.1.0 | Cassandra 4.1.4 | CQL spec 3.4.6 | Native protocol v5]
cqlsh> create keyspace Students with replication ={ 'class':'SimpleStrategy','replication_factor':1};
cqlsh> describe keyspaces

students   system_auth         system_schema   system_views
system     system_distributed  system_traces   system_virtual_schema

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

employee   system         system_distributed  system_traces   system_virtual_schema
students   system_auth    system_schema       system_views
```

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

```
cqlsh> use employee;
cqlsh:employee> create table Employee_info(
           ... Emp_id int primary key,
           ... Emp_name text,
           ... Designation text,
           ... Date_of_joining timestamp,
           ... Salary double,
           ... Dept_name text);
```

3. Insert the values into the table in batch

```
cqlsh:employee>
cqlsh:employee> BEGIN BATCH
           ...      INSERT INTO Employee_info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
           ...      VALUES (101, 'John Doe', 'Software Engineer', '2022-01-01', 60000, 'Engineering');
           ...
           ...      INSERT INTO Employee_info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
           ...      VALUES (102, 'Jane Smith', 'HR Manager', '2021-12-15', 75000, 'Human Resources');
           ...
           ...      INSERT INTO Employee_info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
           ...      VALUES (121, 'Michael Johnson', 'Senior Software Engineer', '2022-02-10', 80000, 'Engineering');
           ... APPLY BATCH;
cqlsh:employee> select * from Employee_info
           ...
cqlsh:employee> select * from Employee_info;
```

emp_id	date_of_joining	dept_name	designation	emp_name	salary
121	2022-02-09 18:30:00.000000+0000	Engineering	Senior Software Engineer	Michael Johnson	80000
102	2021-12-14 18:30:00.000000+0000	Human Resources	HR Manager	Jane Smith	75000
101	2021-12-31 18:30:00.000000+0000	Engineering	Software Engineer	John Doe	60000

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

```
cqlsh:employee> update Employee_info set Emp_name='Alek', Dept_name='Security' where Emp_Id=121;
cqlsh:employee> select * from Employee_info
         ...
cqlsh:employee> select * from Employee_info;

 emp_id | date_of_joining                 | dept_name       | designation              | emp_name   | salary
--------+---------------------------------+-----------------+--------------------------+------------+--------
    121 | 2022-02-09 18:30:00.000000+0000 |        Security | Senior Software Engineer |       Alek |  80000
    102 | 2021-12-14 18:30:00.000000+0000 | Human Resources |               HR Manager | Jane Smith |  75000
    101 | 2021-12-31 18:30:00.000000+0000 |     Engineering |        Software Engineer |   John Doe |  60000
```

```
 emp_id | date_of_joining                 | dept_name | designation | emp_name     | salary
--------+---------------------------------+-----------+-------------+--------------+--------
    122 | 2024-05-31 18:30:00.000000+0000 |       KSC |      Intern |      Aravind |  35000
    121 | 2024-03-24 18:30:00.000000+0000 |  Security |      Intern | Arvind Ashok |      0
```

5. Sort the details of Employee records based on salary