

## 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

5. Sort the details of Employee records based on salary