

LAB - 2

Perform the following DB operations using Cassandra

a) Create a Keyspace named Employee

```
CREATE KEYSPACE Employee
WITH REPLICATION = {'class': 'SimpleStrategy', 'replication_factor': 1};
```

b) Create a Column Family Employee_Info

```
CREATE TABLE Employee.Employee_Info (
    Emp_Id int PRIMARY KEY,
    Emp_Name text,
    Designation text,
    Date_of_Joining date,
    Salary decimal,
    Dept_Name text
);
```

c) Insert values into the table using BATCH

```
BEGIN BATCH
INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation,
Date_of_Joining, Salary, Dept_Name)
VALUES (121, 'John Doe', 'Manager', '2020-01-10', 75000.00, 'Sales');
```

```
INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation,
Date_of_Joining, Salary, Dept_Name)
VALUES (122, 'Jane Smith', 'Engineer', '2021-06-01', 60000.00,
'Development');
```

```
INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation,
Date_of_Joining, Salary, Dept_Name)
VALUES (123, 'Alice Brown', 'Analyst', '2022-03-15', 50000.00,
'Marketing');
APPLY BATCH;
```

d) Update Employee Name and Department for Emp_Id = 121

```
UPDATE Employee.Employee_Info
SET Emp_Name = 'John A. Doe', Dept_Name = 'HR'
WHERE Emp_Id = 121;
```

f) Alter table to add a column Projects of type set<text>

```
ALTER TABLE Employee.Employee_Info
ADD Projects set<text>;
```

g) Update the Projects set for an employee

```
UPDATE Employee.Employee_Info
SET Projects = {'Project A', 'Project B'}
WHERE Emp_Id = 121;
```

h) Insert a row with TTL of 15 seconds

```
INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation,
Date_of_Joining, Salary, Dept_Name)
VALUES (124, 'Tim Cook', 'Director', '2023-05-12', 90000.00, 'Executive')
USING TTL 15;
```

```

hadoop@bmscscse-HP-Elite-Tower-800-G9-Desktop-PC:~$ cqlsh
Connected to Test Cluster at 127.0.0.1:9042
[cqlsh 6.1.0 | Cassandra 4.1.8 | CQL spec 3.4.6 | Native protocol v5]
Use HELP for help.
cqlsh> CREATE KEYSPACE Employee
... WITH REPLICATION = {'class': 'SimpleStrategy', 'replication_factor': 1};
cqlsh> CREATE TABLE Employee.Employee_Info (
...     Emp_Id int PRIMARY KEY,
...     Emp_Name text,
...     Designation text,
...     Date_of_Joining date,
...     Salary decimal,
...     Dept_Name text
... );
cqlsh> BEGIN BATCH
... INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
... VALUES (121, 'John Doe', 'Manager', '2020-01-10', 75000.00, 'Sales');
...
... INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
... VALUES (122, 'Jane Smith', 'Engineer', '2021-06-01', 60000.00, 'Development');
...
... INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
... VALUES (123, 'Alice Brown', 'Analyst', '2022-03-15', 50000.00, 'Marketing');
... APPLY BATCH;
cqlsh> UPDATE Employee.Employee_Info
... SET Emp_Name = 'John A. Doe', Dept_Name = 'HR'
... WHERE Emp_Id = 121;

```

```

cqlsh> ALTER TABLE Employee.Employee_Info
... ADD Projects set<text>;
cqlsh> UPDATE Employee.Employee_Info
... SET Projects = {'Project A', 'Project B'}
... WHERE Emp_Id = 121;
cqlsh> SELECT * FROM Employee.Employee_Info;

```

emp_id	date_of_joining	dept_name	designation	emp_name	projects	salary
123	2022-03-15	Marketing	Analyst	Alice Brown	null	50000.00
122	2021-06-01	Development	Engineer	Jane Smith	null	60000.00
121	2020-01-10	HR	Manager	John A. Doe	{'Project A', 'Project B'}	75000.00

(3 rows)

```

cqlsh> INSERT INTO Employee.Employee_Info (Emp_Id, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name)
... VALUES (124, 'Tim Cook', 'Director', '2023-05-12', 90000.00, 'Executive')
... USING TTL 15;
cqlsh> SELECT * FROM Employee.Employee_Info WHERE Emp_Id = 124;

```

emp_id	date_of_joining	dept_name	designation	emp_name	projects	salary
124	2023-05-12	Executive	Director	Tim Cook	null	90000.00