

Program 2

Question –Perform the following DB operations using Cassandra.

1. Create a keyspace by name 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
3. Insert the values into the table in batch
3. Update Employee name and Department of Emp-Id 121
4. Sort the details of Employee records based on salary
5. Alter the schema of the table Employee_Info to add a column Projects which stores a set of
Projects done by the corresponding Employee.
6. Update the altered table to add project names.
7. Create a TTL of 15 seconds to display the values of Employees.

1. Create a keyspace by name Employee

```
CREATE KEYSPACE employee WITH REPLICATION={ 'class' : 'SimpleStrategy', 'replication_factor' : 1};  
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, designation text,  
date_of_joining timestamp, salary double, dept_name text);
```

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(100,'TANYA','MANAGER','2020-09-11',30000,'TESTING')  
  
... INSERT INTO employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name  
VALUES(111,'SRIRAM','ASSOCIATE','2020-06-22',25000,'DEVELOPING')  
  
... INSERT INTO  
  
employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)  
VALUES(121,'SHIVA','MANAGER','2020-03-30',35000,'HR')
```

... APPLY BATCH;

SELECT * FROM employee_info;

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

UPDATE employee_info SET emp_name = 'SHAAN' WHERE emp_id = 121;

SELECT * FROM employee_info;

5. Sort the details of Employee records based on salary

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 projects text;

7. Update the altered table to add project names.

UPDATE employee_info SET projects = 'chat app' WHERE emp_id = 111;

UPDATE employee_info SET projects = 'campusx' WHERE emp_id = 121;

UPDATE employee_info SET projects = 'canteen app' WHERE emp_id = 100;

SELECT * FROM employee_info;

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

INSERT INTO

employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)

VALUES(110,'SAM','ASSOCIATE','2020-01-11',33000,'TESTING') USING TTL 15;

SELECT TTL(emp_name) from employee_info WHERE emp_id = 110;

SELECT * FROM employee_info;

```
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 text, designation text, date_of_joining timestamp, salary double, dept_name text);

cqlsh:employee> BEGIN BATCH INSERT INTO employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)
VALUES(110,'SAM','ASSOCIATE','2020-01-11',33000,'TESTING') USING TTL 15;
... INSERT INTO employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)
... INSERT INTO employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name)
... APPLY BATCH;
cqlsh:employee> SELECT * FROM employee_info;
```

| emp_id | date_of_joining | dept_name | designation | emp_name | salary |
|--------|---------------------------------|------------|-------------|----------|--------|
| 111 | 2020-06-21 18:30:00.000000+0000 | DEVELOPING | ASSOCIATE | SRIRAM | 25000 |
| 121 | 2020-03-29 18:30:00.000000+0000 | HR | MANAGER | SHIVA | 35000 |
| 100 | 2020-09-10 18:30:00.000000+0000 | TESTING | MANAGER | TANYA | 30000 |

(3 rows)

```
cqlsh:employee> UPDATE employee_info SET emp_name = 'SHAAN' WHERE emp_id = 121;
cqlsh:employee> SELECT * FROM employee_info;
```

| emp_id | date_of_joining | dept_name | designation | emp_name | salary |
|--------|---------------------------------|------------|-------------|----------|--------|
| 111 | 2020-06-21 18:30:00.000000+0000 | DEVELOPING | ASSOCIATE | SRIRAM | 25000 |
| 121 | 2020-03-29 18:30:00.000000+0000 | HR | MANAGER | SHAAN | 35000 |
| 100 | 2020-09-10 18:30:00.000000+0000 | TESTING | MANAGER | TANYA | 30000 |

(3 rows)

```
cqlsh:employee> ALTER TABLE employee_info ADD projects_done set<text>;
```

```
cqlsh:employee> ALTER TABLE employee_info ADD projects_done set<text>;
```

```
cqlsh:employee> UPDATE employee_info SET projects_done = {'chat app'} WHERE emp_id = 111;
cqlsh:employee> UPDATE employee_info SET projects_done = {'campusx,flashcard'} WHERE emp_id = 121;
cqlsh:employee> UPDATE employee_info SET projects_done = {'canteen app'} WHERE emp_id = 100;
cqlsh:employee> SELECT * FROM employee_info
... ;
```

| emp_id | date_of_joining | dept_name | designation | emp_name | projects_done | salary |
|--------|---------------------------------|------------|-------------|----------|-----------------------|--------|
| 111 | 2020-06-21 18:30:00.000000+0000 | DEVELOPING | ASSOCIATE | SRIRAM | {'chat app'} | 25000 |
| 121 | 2020-03-29 18:30:00.000000+0000 | HR | MANAGER | SHAAN | {'campusx,flashcard'} | 35000 |
| 100 | 2020-09-10 18:30:00.000000+0000 | TESTING | MANAGER | TANYA | {'canteen app'} | 30000 |

(3 rows)

```
cqlsh:employee> INSERT INTO employee_info(emp_id,emp_name,designation,date_of_joining,salary,dept_name) VALUES(110,'SAM','ASSOCIATE','2020-01-11',33000,'TESTING') USING
TTL 15;
```

```
cqlsh:employee> SELECT TTL(emp_name) from employee_info WHERE emp_id = 110;
```

```
t11(emp_name)
-----
13
```

(1 rows)

```
cqlsh:employee> SELECT * FROM employee_info;
```

| emp_id | date_of_joining | dept_name | designation | emp_name | projects_done | salary |
|--------|---------------------------------|------------|-------------|----------|-----------------------|--------|
| 110 | 2020-01-10 18:30:00.000000+0000 | TESTING | ASSOCIATE | SAM | null | 33000 |
| 111 | 2020-06-21 18:30:00.000000+0000 | DEVELOPING | ASSOCIATE | SRIRAM | {'chat app'} | 25000 |
| 121 | 2020-03-29 18:30:00.000000+0000 | HR | MANAGER | SHAAN | {'campusx,flashcard'} | 35000 |
| 100 | 2020-09-10 18:30:00.000000+0000 | TESTING | MANAGER | TANYA | {'canteen app'} | 30000 |

(4 rows)

```
cqlsh:employee> SELECT * FROM employee_info
... ;
```

| emp_id | date_of_joining | dept_name | designation | emp_name | projects_done | salary |
|--------|---------------------------------|------------|-------------|----------|-----------------------|--------|
| 111 | 2020-06-21 18:30:00.000000+0000 | DEVELOPING | ASSOCIATE | SRIRAM | {'chat app'} | 25000 |
| 121 | 2020-03-29 18:30:00.000000+0000 | HR | MANAGER | SHAAN | {'campusx,flashcard'} | 35000 |
| 100 | 2020-09-10 18:30:00.000000+0000 | TESTING | MANAGER | TANYA | {'canteen app'} | 30000 |

(3 rows)