

Lab 2

Perform the following DB operations using Cassandra.

- Create a keyspace by name Employee
- Create a column family by name Employee-Info with attributes Emp_Id Primary Key, Emp_Name, Designation, Date_of_Joining, Salary, Dept_Name
- Insert the values into the table in batch
- Update Employee name and Department of Emp-Id 121
- Sort the details of Employee records based on salary
- Alter the schema of the table Employee_Info to add a column Projects which stores a set of Projects done by the corresponding Employee.
- Update the altered table to add project names.
- Create a TTL of 15 seconds to display the values of Employees.

```
varsha28@Ubuntu1:~/apache-cassandra-5.0.4$ cd bin
varsha28@Ubuntu1:~/apache-cassandra-5.0.4/bin$ ./cqlsh
Connection error: ('Unable to connect to any servers', {'127.0.0.1:9042': ConnectionRefusedError(111, "Tried connecting to [('127.0.0.1', 9042)]. Last error: Connection refused'))
varsha28@Ubuntu1:~/apache-cassandra-5.0.4/bin$ cqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 5.0.4 | CQL spec 3.4.7 | Native protocol v5]
Use HELP for help.
cqlsh> CREATE KEYSPACE Employee WITH REPLICATION={'class':'SimpleStrategy','replication_factor':1};
cqlsh> DESCRIBE KEYSPACES;
```

keyspace_name	durable_writes	replication
system_auth	True	{'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}
system_schema	True	{'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_distributed	True	{'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '3'}
system	True	{'class': 'org.apache.cassandra.locator.LocalStrategy'}
system_traces	True	{'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '2'}
employee	True	{'class': 'org.apache.cassandra.locator.SimpleStrategy', 'replication_factor': '1'}

```
(6 rows)
cqlsh> USE employee;
cqlsh:employee> CREATE TABLE empinfo(
...   empid INT PRIMARY KEY,
...   empname TEXT,
...   designation TEXT,
...   dateofjoining DATE,
...   salary DOUBLE,
...   deptname TEXT
... );
```

```
cqlsh:employee> BEGIN BATCH
...   INSERT INTO empinfo(empid, empname, designation, dateofjoining, salary, deptname)
...   VALUES(121, 'Aarohi Shirke', 'Developer', '2020-01-15', 55000, 'IT');
...   INSERT INTO empinfo(empid, empname, designation, dateofjoining, salary, deptname)
...   VALUES(122, 'Neil Sawant', 'Manager', '2018-03-10', 75000, 'HR');
...   INSERT INTO empinfo(empid, empname, designation, dateofjoining, salary, deptname)
...   VALUES(123, 'Sharayu Shivalkar', 'Analyst', '2021-07-22', 50000, 'Finance');
... APPLY BATCH;
cqlsh:employee> UPDATE empinfo
... SET empname='Aarohi Sawant', deptname='R&D'
... WHERE empid=121;
cqlsh:employee> SELECT * FROM empinfo;
```

empid	dateofjoining	deptname	designation	empname	salary
123	2021-07-22	Finance	Analyst	Sharayu Shivalkar	50000
122	2018-03-10	HR	Manager	Neil Sawant	75000
121	2020-01-15	R&D	Developer	Aarohi Sawant	55000

```
(3 rows)
cqlsh:employee> ALTER TABLE empinfo ADD projects SET <TEXT>;
cqlsh:employee> SELECT * FROM empinfo;
```

empid	dateofjoining	deptname	designation	empname	projects	salary
123	2021-07-22	Finance	Analyst	Sharayu Shivalkar	null	50000
122	2018-03-10	HR	Manager	Neil Sawant	null	75000
121	2020-01-15	R&D	Developer	Aarohi Sawant	null	55000

```
(3 rows)
cqlsh:employee> UPDATE empinfo
... SET projects={'ERP System', 'HR Portal'}
... WHERE empid=122;
```

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

empid	dateofjoining	deptname	designation	empname	projects	salary
123	2021-07-22	Finance	Analyst	Sharayu Shivaikar	null	50000
122	2018-03-10	HR	Manager	Neil Sawant	{'ERP System', 'HR Portal'}	75000
121	2020-01-15	R&D	Developer	Aarohi Sawant	null	55000

(3 rows)

```
cqlsh:employee> INSERT INTO empinfo(empid, empname, designation, dateofjoining, salary, deptname)  
... VALUES(124, 'Ritvik Ranade', 'Tester', '2022-05-01', 45000, 'QA') USING TTL 15;
```

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

empid	dateofjoining	deptname	designation	empname	projects	salary
123	2021-07-22	Finance	Analyst	Sharayu Shivaikar	null	50000
122	2018-03-10	HR	Manager	Neil Sawant	{'ERP System', 'HR Portal'}	75000
121	2020-01-15	R&D	Developer	Aarohi Sawant	null	55000
124	2022-05-01	QA	Tester	Ritvik Ranade	null	45000

(4 rows)

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

empid	dateofjoining	deptname	designation	empname	projects	salary
123	2021-07-22	Finance	Analyst	Sharayu Shivaikar	null	50000
122	2018-03-10	HR	Manager	Neil Sawant	{'ERP System', 'HR Portal'}	75000
121	2020-01-15	R&D	Developer	Aarohi Sawant	null	55000

(3 rows)