

# CASSANDRA – LAB 1

1. Create a keyspace named hospital with class SimpleStrategy and replication factor 1 in Cassandra database and do the following.

```
cqlsh> create keyspace hospital with replication={'class':'SimpleStrategy','  
replication_factor':1};  
cqlsh> use hospital;  
cqlsh:hospital>
```

- a) Create a columnfamily named patient with columns ptid, pname, address(map),phone(list).

**Ans=**

```
cqlsh:hospital> create table patient(ptid int primary key,pname text,address map<text,text>,phone list<text>);
```

- b) Create another columnfamily named doctor with columns docid, docname, dept, qualification(set).

**Ans=**

```
cqlsh:hospital> create table doctor(docid int primary key, docname text,dept text, qualification set<text>);  
cqlsh:hospital>
```

- c) Insert some rows into patient and doctor tables as a batch.

**Ans=**

```
DynamicReplication and no valid alternative at input apply (apply)117  
cqlsh:hospital> begin batch  
... insert into patient(ptid,pname,address,phone) values(1,'Sunil',{'Home1':'Pune'},['9087654321','1023456789']);  
... insert into doctor(docid, docname, dept, qualification) values(101,'Dr.Prashant','Radiology',{'MD','MBBS'});  
... apply batch;  
cqlsh:hospital> |
```

d) Change one phone no: with a new one of a particular patient.

Ans=

```
cqlsh:hospital> update patient set phone=['9845439289'] where ptid=1;
cqlsh:hospital> select * from patient;
```

ptid	address	phone	ptname
1	{'Home1': 'Pune'}	['9845439289']	Sunil

(1 rows)

e) Remove a phone no: from the list of a particular patient.

Ans=

ptid	address	phone	ptname
1	{'Home1': 'Pune'}	['9845439289']	Sunil
2	{'Home2': 'Pune'}	['8736456233', '9023456789']	Rushi

(2 rows)

```
cqlsh:hospital> update patient set phone=phone-['8736456233'] where ptid=2;
cqlsh:hospital> select * from patient;
```

ptid	address	phone	ptname
1	{'Home1': 'Pune'}	['9845439289']	Sunil
2	{'Home2': 'Pune'}	['9023456789']	Rushi

(2 rows)

```
cqlsh:hospital> |
```

f) Update the house no: of a particular patient in the map address.

Ans=

```
cqlsh:hospital> update patient set address['Home1']='House1' where ptid=1;
cqlsh:hospital> select * from patient;
```

ptid	address	phone	ptname
1	{'Home1': 'House1'}	['9845439289']	Sunil
2	{'Home2': 'Pune'}	['9023456789']	Rushi

g) Add a new qualification to the set of a particular doctor.

Ans=

```
docid | dept      | docname      | qualification
-----+-----+-----+-----
  101 | Radiology | Dr.Prashant | {'MBBS', 'MD'}

(1 rows)
cqlsh:hospital> update doctor set qualification=qualification+{'PG'} where docid=101;
cqlsh:hospital> select * from doctor;

docid | dept      | docname      | qualification
-----+-----+-----+-----
  101 | Radiology | Dr.Prashant | {'MBBS', 'MD', 'PG'}

(1 rows)
```

h) Display docname and dept of all doctors.

Ans=

```
(2 rows)
cqlsh:hospital> select docname, dept from doctor;

docname      | dept
-----+-----
  Dr.Nikhil  | Dentist
  Dr.Prashant | Radiology

(2 rows)
cqlsh:hospital>
```

i) Add a new column named email in doctor table.

Ans=

```
cqlsh:hospital> alter table doctor add email list<text>;
cqlsh:hospital> select * from doctor;
```

docid	dept	docname	email	qualification
102	Dentist	Dr.Nikhil	null	{'MBBS', 'MD'}
101	Radiology	Dr.Prashant	null	{'MBBS', 'MD', 'PG'}

(2 rows)  
cqlsh:hospital>

j) Display all the keyspaces.

Ans=

```
cqlsh:hospital> desc keyspaces;
```

hospital	system_auth	system	system_distributed	system_traces	system_schema
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```
cqlsh:hospital> desc tables;
```

patient	doctor
---------	--------

```
cqlsh:hospital>
```