

CASSANDRA – LAB 2

1. In the keyspace named hospital in Cassandra database do the following.

a) Create a user defined datatype named patientinfo with fields height, weight, symptoms.

Ans=

```
cqlsh:hospital> create type patientinfo(height text, weight int, symptoms text);
```

b) Add a new column named info in patient table which has the user defined type patientinfo.

Ans=

```
cqlsh:hospital> alter table patient add info frozen<patientinfo>;  
cqlsh:hospital>
```

c) Update the rows in patient table by adding data to info.

Ans=

```
cqlsh:hospital> update patient set info={height:'168cm',weight:68,symptoms:'Fever'} where ptid=2;  
cqlsh:hospital> select * from patient;
```

ptid	address	info	phone	ptname
1	{'Home1': 'House1', 'House1': 'Pune'}	{height: '173cm', weight: 78, symptoms: 'Cold'}	['9845439289']	Sunil
2	{'Home2': 'Pune'}	{height: '168cm', weight: 68, symptoms: 'Fever'}	['9023456789']	Rushi

(2 rows)
cqlsh:hospital>

d) Update user defined type patientinfo by adding a field named oxylevel.

Ans=

```
cqlsh:hospital> alter type patientinfo add oxylevel text;
cqlsh:hospital> select * from patient;
```

ptid	address	info	phone	ptname
1	{'Home1': 'House1', 'House1': 'Pune'}	{height: '173cm', weight: 78, symptoms: 'Cold', oxylevel: null}	['9845439289']	Sunil
2	{'Home2': 'Pune'}	{height: '168cm', weight: 68, symptoms: 'Fever', oxylevel: null}	['9023456789']	Rushi

(2 rows)
cqlsh:hospital>

e) Create an index for ptname of table patient.

Ans=

```
cqlsh:hospital> create index ptnameindex on patient(ptname);
```

f) Find the details of a particular patient where ptname is given.

Ans=

```
cqlsh:hospital> select * from patient where ptname='Rushi';
```

ptid	address	info	phone	ptname
2	{'Home2': 'Pune'}	{height: '168cm', weight: 68, symptoms: 'Fever', oxylevel: null}	['9023456789']	Rushi

(1 rows)
cqlsh:hospital>

g) Drop the index for ptname.

Ans=

```
(1 rows)  
cqlsh:hospital> drop index ptnameindex;  
cqlsh:hospital>
```

h) Create a columnfamily named staff with columns sid, sname, dept and salary where sname is a userdefined type with fields fname and lname.

Ans=

```
cqlsh:hospital> create type names(fname text, lname text);
cqlsh:hospital> create table staff(sid int primary key, sname frozen<names>, dept text, salary int);
cqlsh:hospital>
```

i) Insert some rows into staff table.

Ans=

```
cqlsh:hospital> insert into staff(sid,sname,dept,salary) values(1,{fname:'Robin',lname:'singh'},'Marketing',80000);
cqlsh:hospital> insert into staff(sid,sname,dept,salary) values(2,{fname:'Sumit',lname:'Passi'},'Manager',90000);
cqlsh:hospital> insert into staff(sid,sname,dept,salary) values(3,{fname:'Nikhil',lname:'Kadam'},'Salesrep',70000);
cqlsh:hospital> select * from staff;
```

sid	dept	salary	sname
1	Marketing	80000	{fname: 'Robin', lname: 'singh'}
2	Manager	90000	{fname: 'Sumit', lname: 'Passi'}
3	Salesrep	70000	{fname: 'Nikhil', lname: 'Kadam'}

(3 rows)
cqlsh:hospital> |

j) Find the details of a particular staff whose fname and lname is given using allow filtering option.

Ans=

```
(3 rows)
cqlsh:hospital> select * from staff where sname={fname:'Sumit',lname:'Passi'} allow filtering;
```

sid	dept	salary	sname
2	Manager	90000	{fname: 'Sumit', lname: 'Passi'}

k) Rename the fields fname and lname as firstname and lastname.

Ans=

```
cqlsh:hospital> alter type names rename fname to firstname;
cqlsh:hospital> alter type names rename lname to lastname;
cqlsh:hospital> select * from staff;
```

sid	dept	salary	sname
1	Marketing	80000	{firstname: 'Robin', lastname: 'singh'}
2	Manager	90000	{firstname: 'Sumit', lastname: 'Passi'}
3	Salesrep	70000	{firstname: 'Nikhil', lastname: 'Kadam'}

(3 rows)
cqlsh:hospital>

l) Find the maximum salary available in the staff table.

Ans=

```
cqlsh:hospital> select max(salary) from staff;
```

system.max(salary)
90000

(1 rows)