Cassandra CQL

Start cassandra

bin/cassandra -f

Start cassandra shell

bin/cqlsh

List all the keyspaces (Data bases)

select * from system.schema_keyspaces ;

Create keyspace

CREATE KEYSPACE mobapp WITH replication = {'class': 'SimpleStrategy', 'replication_factor': 3};

DESCRIBE KEYSPACE mobapp ;

use mobapp

Create table (column family)

CREATE TABLE appinfo (sno int,appName varchar , userName varchar , gender varchar ,PRIMARY KEY (sno));

Describe table

DESCRIBE TABLES (show all tables)

DESCRIBE TABLE appinfo ;

Insert Record

insert INTO appinfo (sno , appname , username , gender) VALUES (1,'olx','john','male');

Select all

select * from appinfo ;

TTL

insert INTO appinfo (sno , appname , username , gender) VALUES (2,'ola','john','male') USING ttl 43200;

SELECT TTL (appname) from appinfo WHERE sno = 2 ALLOW FILTERING;

Update

UPDATE appinfo set appname = 'amazon' WHERE sno=1;

Update with TTL

UPDATE mobapp.appinfo USING TTL 43200 SET appname = 'amazon' WHERE sno= 1;

UDT

CREATE TYPE mob_details (mobno int,mobname varchar,location text);

CREATE TABLE mobinfo (sno int,appname text ,primary key(sno), mobinfo map<text,frozen<mob_details>>);

insert INTO mobinfo (sno , appname , mobinfo) VALUES (1,'fb',{'mike':{mobno:90039,mobname:'moto',location:'chennai'}});

select * from mobinfo ;

Describe UDT

describe type mob_details;

Alter UDT

ALTER TYPE mob_details ADD email text;

Rename UDT

ALTER TYPE mob_details RENAME email TO mail;

Alter table

alter table appinfo alter sno type uuid;

alter table appinfo add country varchar; (adding column)

alter table appinfo drop country; (drop column)

Drop Type

drop type card;

Drop keyspace

drop keyspace mobapp;

Drop Table

drop table appinfo;

Truncate

truncate mobapp.appinfo;

Collections

List

CREATE TABLE credits(sno int PRIMARY KEY,appname text , email list<text>);

INSERT INTO credits (sno,appname, email) VALUES (1,'flipkart',['abc@gmail.com','cba@yahoo.com']);

select * from credits;

Add a data in list

UPDATE credits SET email = email +['xyz@gmail.com'] where sno = 1;

Remove a data in list

UPDATE credits SET email = email -['xyz@gmail.com'] where sno = 1;

Set

CREATE TABLE credits1(sno int PRIMARY KEY,appname text , phone set<varint>);

INSERT INTO credits1 (sno,appname, phone) VALUES (1,'flipkart',{9848022338,9848022339});

select * from credits;

Add a data in set

UPDATE credits1 SET phone = phone + {9848022330} where sno = 1;

Remove a data in set

UPDATE credits1 SET phone = phone -{9848022330} where sno = 1;

Map

CREATE TABLE credits3 (sno int PRIMARY KEY, appname text,address map<text, text>);

INSERT INTO credits3 (sno,appname, address) VALUES (1,'robin', {'home' : 'hyderabad' , 'office' : 'Delhi' });

select * from credits3;

Update

```
UPDATE credits3 SET address = address+{'office':'mumbai'} WHERE sno = 1;
```

Index

```
create index app on mobapp.appinfo(gender);
```

Composite Key with Clustering Key

Composite key

```
create table Bite (
    partkey varchar,
    score bigint,
    id varchar,
    data varchar,
    PRIMARY KEY (partkey, score, id)
 ) with clustering order by (score desc);

insert into bite (partkey,score,id,data) values('feed0',101,'bite2','just');
insert into bite (partkey,score,id,data) values('feed0',102,'bite3','just');
insert into bite (partkey,score,id,data) values('feed0',103,'bite4','just');
insert into bite (partkey,score,id,data) values('feed0',104,'bite5','just');
insert into bite (partkey,score,id,data) values('feed0',105,'bite6','just');

select data from bite where partkey='feed0' and score=101 and id='bite2';
select data from bite where partkey='feed0' order by score desc limit 2;
select data from bite where biteid='bite2'
```

Secondary Index

alter table Bite add biteId varchar;

create index Bite_biteId on Bite (biteId);

Permission

Grant

GRANT SELECT ON ALL KEYSPACES TO datadotz;

GRANT MODIFY ON KEYSPACE field TO datadotz;

GRANT ALTER ON KEYSPACE mobapp TO datadotz;

GRANT ALL PERMISSIONS ON mobapp.appinfo TO datadotz;

GRANT ALL ON KEYSPACE mobapp TO datadotz

Revoke

REVOKE SELECT ON mobapp.appinfo FROM datadotz;

Security

Change the authenticator option in the cassandra.yaml file to PasswordAuthenticator.

By default, the authenticator option is set to AllowAllAuthenticator.

authenticator: PasswordAuthenticator

>Restart the Cassandra cluster

>Then start the

bin/cqlsh -u cassandra -p cassandra **(The default one)**

LIST USERS ;

Create User

CREATE USER datadotz WITH PASSWORD 'dd';

Drop User

drop user datadotz

Counter

create table mobapp.appinstall(countvalue counter, appname varchar ,primary key(appname));
update mobapp.appinstall set countvalue =countvalue+1 where appname='flipcart';
select * from mobapp.appinstall;

CQLSH COMMANDS

Capture

capture '~/cassandra/cap.txt';

capture off;

Consistency

consistency

(it returns Current consistency level is ONE.)

Copy

copy mobapp.appinfo(sno,appname ,gender,username)to '~/cassandra/cqlfile.txt';

copy mobapp.appinfo (sno,appname ,gender,username)from '~/datafiles/appevents.txt';

Describe

DESCRIBE cluster;

DESCRIBE keyspaces;

DESCRIBE keyspaces mobapp;

DESCRIBE tables;

DESCRIBE table appinfo;

Exit

exit

Show

SHOW version;

SHOW host;

Source

source '~/cassandra/cap.txt';

Trace

tracing on;

Now tracing requests

insert into patientdata.patient (sno,appname,gender,username)values(3,'facebook','male','erik');

Tracing off;

Disabled tracing.