**khushil@khushil-VirtualBox**:**~/Desktop/cassandra/bin**$ sudo apt install cassandra
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi
  libgstreamer-plugins-bad1.0-0 libva-wayland2
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  cassandra-tools
The following NEW packages will be installed:
  cassandra
0 upgraded, 1 newly installed, 0 to remove and 312 not upgraded.
Need to get 47.5 MB of archives.
After this operation, 58.8 MB of additional disk space will be used.
Get:1 https://downloads.apache.org/cassandra/debian 40x/main amd64 cassandra all 4.0.4 [47.5 MB]
Fetched 47.5 MB in 8s (5,919 kB/s)
Selecting previously unselected package cassandra.
(Reading database ... 191150 files and directories currently installed.)
Preparing to unpack .../cassandra_4.0.4_all.deb ...
Unpacking cassandra (4.0.4) ...
Setting up cassandra (4.0.4) ...
Adding group `cassandra' (GID 134) ...
Done.
vm.max_map_count = 1048575
net.ipv4.tcp_keepalive_time = 300
update-rc.d: warning: start and stop actions are no longer supported; falling ba
ck to defaults
Processing triggers for systemd (245.4-4ubuntu3.15) ...
**khushil@khushil-VirtualBox**:**~/Desktop/cassandra/bin**$ sudo systemctl enable cassandra
cassandra.service is not a native service, redirecting to systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable cassandra
**khushil@khushil-VirtualBox**:**~/Desktop/cassandra/bin**$ sudo systemctl start cassandra
**khushil@khushil-VirtualBox**:**~/Desktop/cassandra/bin**$ cqlsh
Connected to **Test Cluster** at 127.0.0.1:9042
[cqlsh 6.0.0 | Cassandra 3.11.13 | CQL spec 3.4.4 | Native protocol v4]
cqlsh> create keyspace Employee with replication = {'class': 'SimpleStrategy', 'replication_factor': 2};

Warnings :
Your replication factor 2 for keyspace employee is higher than the number of nodes 1

cqlsh> create table EmployeeInfo (
   ... empid int,
   ... empname text,
   ... designation text,
   ... date_of_joining timestamp,
   ... salary double,
   ... dept text,
   ... );
**InvalidRequest: Error from server: code=2200 [Invalid query] message="No keyspace has been specified. USE a keyspace, or explicitly specify keyspace.tablename"**
cqlsh> use Employee;
cqlsh:employee> create table EmployeeInfo ( empid int, empname text, designation text, date_of_joining timestamp, salary double, dept text,
);

**InvalidRequest: Error from server: code=2200 [Invalid query] message="No PRIMARY KEY specifed (exactly one required)"**
cqlsh:employee> create table EmployeeInfo ( empid int, empname text, designation text, date_of_joining timestamp, salary double, dept text, );

**InvalidRequest: Error from server: code=2200 [Invalid query] message="No PRIMARY KEY specifed (exactly one required)"**
cqlsh:employee> create table EmployeeInfo ( empid int, empname text, designation text, date_of_joining timestamp, salary double, dept text, )
         ...
cqlsh:employee>
cqlsh:employee> create table EmployeeInfo ( empid int, empname text, designation text, date_of_joining timestamp, salary double, dept text,
         ... primary key(empid));
cqlsh:employee> begin batch
         ... insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (1, "ramesh", "Software Engineer II", "2022-05-05", 15000.0, "IT")
         ... insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (2, "suresh", "Software Engineer I", "2022-05-06", 10000.0, "IT")
         ... insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (3, "raju", "HR", "2022-06-06", 20000.0, "HR")
         ... apply batch;
**SyntaxException: line 2:105 no viable alternative at input ',' (... dept) values (1, ["rames]h",...)**
cqlsh:employee> begin batch insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (1, 'ramesh', 'Software Engineer II', '2022-05-05', 15000.0, 'IT') insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (2, 'suresh', 'Software Engineer I', '2022-05-06', 10000.0, 'IT') insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (3, 'raju', 'HR', '2022-06-06', 20000.0, 'HR') apply batch;
cqlsh:employee> select * from EmployeeInfo
         ... ;

| empid | date_of_joining | dept | designation | empname | salary |
|-------|------------------------------|------|----------------------|---------|--------|
| 1 | 2022-05-04 18:30:00.000000+0000 | IT | Software Engineer II | ramesh | 15000 |
| 2 | 2022-05-05 18:30:00.000000+0000 | IT | Software Engineer I | suresh | 10000 |
| 3 | 2022-06-05 18:30:00.000000+0000 | HR | HR | raju | 20000 |

(3 rows)
cqlsh:employee> begin batch insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (121, 'shyam', 'Software Engineer II', '2022-05-05', 15000.0, 'IT') insert into EmployeeInfo (empid, empname, designation, date_of_joining, salary, dept) values (122, 'babu', 'Software Engineer I', '2022-05-06', 10000.0, 'IT') apply batch;
cqlsh:employee> select * from EmployeeInfo
         ... ;

| empid | date_of_joining | dept | designation | empname | salary |
|-------|------------------------------|------|----------------------|---------|--------|
| 1 | 2022-05-04 18:30:00.000000+0000 | IT | Software Engineer II | ramesh | 15000 |
| 122 | 2022-05-05 18:30:00.000000+0000 | IT | Software Engineer I | babu | 10000 |
| 2 | 2022-05-05 18:30:00.000000+0000 | IT | Software Engineer I | suresh | 10000 |
| 121 | 2022-05-04 18:30:00.000000+0000 | IT | Software Engineer II | shyam | 15000 |
| 3 | 2022-06-05 18:30:00.000000+0000 | HR | HR | raju | 20000 |

(5 rows)
cqlsh:employee> update EmployeeInfo set empname
         ... ="babu rao" where empid=121;
**SyntaxException: line 2:12 no viable alternative at input 'where' (update EmployeeInfo set empname=["babu ra]o" where...)**
cqlsh:employee> update EmployeeInfo set empname ="babu rao" where empid=121;
**SyntaxException: line 1:44 no viable alternative at input 'where' (update EmployeeInfo set empname =["babu ra]o" where...)**
cqlsh:employee> update EmployeeInfo set empname ='babu rao' where empid=121;
cqlsh:employee> select * from EmployeeInfo;

```
 empid | date_of_joining              | dept | designation        | empname | salary
-------+-----------------------------+------+--------------------+---------+--------
     1 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II |  ramesh |  15000
   122 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |    babu |  10000
     2 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |  suresh |  10000
   121 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II | babu rao |  15000
     3 | 2022-06-05 18:30:00.000000+0000 |   HR |                   HR |    raju |  20000

(5 rows)
cqlsh:employee> PAGGING OFF
           ... ;
SyntaxException: line 1:0 no viable alternative at input 'PAGGING' ([PAGGING]...)
cqlsh:employee> PAGING OFF;
Disabled Query paging.
cqlsh:employee> select * from EmployeeInfo where empid in (1,2,3) order by salary allow filtering;
InvalidRequest: Error from server: code=2200 [Invalid query] message="Order by is currently only supported on the clustered columns of the PRIMARY KEY, got salary"
cqlsh:employee> create index EmployeeInfo(salary);
SyntaxException: line 1:25 mismatched input '(' expecting K_ON (create index EmployeeInfo[(]...)
cqlsh:employee> create index on EmployeeInfo(salary);
cqlsh:employee> select * from EmployeeInfo where empid in (1,2,3) order by salary allow filtering;
InvalidRequest: Error from server: code=2200 [Invalid query] message="Order by is currently only supported on the clustered columns of the PRIMARY KEY, got salary"
cqlsh:employee> alter table EmployeeInfo add projects set<text>;
cqlsh:employee> select * from EmployeeInfo;

 empid | date_of_joining              | dept | designation        | empname | projects | salary
-------+-----------------------------+------+--------------------+---------+----------+--------
     1 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II |  ramesh |     null |  15000
   122 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |    babu |     null |  10000
     2 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |  suresh |     null |  10000
   121 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II | babu rao |     null |  15000
     3 | 2022-06-05 18:30:00.000000+0000 |   HR |                   HR |    raju |     null |  20000

(5 rows)
cqlsh:employee> update EmployeeInfo set projects = { 'weather prediction', 'stock prediction' } where empid=1;
cqlsh:employee> update EmployeeInfo set projects = { 'dashboard app'} where empid=2;
cqlsh:employee> update EmployeeInfo set projects = { 'human behavior stats'} where empid=3;
cqlsh:employee> select * from EmployeeInfo;

 empid | date_of_joining              | dept | designation        | empname | projects                               | salary
-------+-----------------------------+------+--------------------+---------+----------------------------------------+--------
     1 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II |  ramesh | {'stock prediction', 'weather prediction'} |  15000
   122 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |    babu |                                   null |  10000
     2 | 2022-05-05 18:30:00.000000+0000 |   IT |  Software Engineer I |  suresh |                        {'dashboard app'} |  10000
   121 | 2022-05-04 18:30:00.000000+0000 |   IT | Software Engineer II | babu rao |                                   null |  15000
     3 | 2022-06-05 18:30:00.000000+0000 |   HR |                   HR |    raju |                  {'human behavior stats'} |  20000

(5 rows)
cqlsh:employee>
```