

Installation of Cassandra DB

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Download the binaries

- Download the Cassandra binary file from below link:
- <http://a.mbbsindia.com/cassandra/2.2.5/apache-cassandra-2.2.5-bin.tar.gz>
- Remember the Cassandra 3.0 + needs the Java8 onwards.

Java installation

- Make sure that you have Java installed in your system by,

```
$ java -version
```

- else, install it by,

```
$ sudo apt-get install openjdk-7-jdk
```

Extract and copy Cassandra

- Extract the cassandra's tar file by right clicking on it and selecting 'Extract here' option.
- It will create the folder **apache-cassandra-2.2.5**.
- Rename this folder as 'cassandra'.
- Now, move this folder to /usr/lib

```
$ sudo mv cassandra/ /usr/lib
```

Create directories

- Create data, commitlog, saved_caches and log directories:

```
sudo mkdir /usr/lib/cassandra/lib/data
```

```
sudo mkdir /usr/lib/cassandra/lib/commitlog
```

```
sudo mkdir /usr/lib/cassandra/lib/saved_caches
```

```
sudo mkdir /usr/lib/log
```

Make directory entries

- Open `cassandra.yaml` file and make these directory entries in it.

```
sudo gedit /usr/lib/cassandra/conf/cassandra.yaml
```

- Go to end of this file and add the following:

```
data_file_directories:
```

```
- /usr/lib/cassandra/lib/data
```

```
commitlog_directory: /usr/lib/cassandra/lib/commitlog
```

```
saved_caches_directory: /usr/lib/cassandra/lib/saved_caches
```

Make log directory entry

- Open logback.xml

```
sudo gedit /usr/lib/cassandra/conf/logback.xml
```

- Edit the line number 35 as,

```
<file>/usr/lib/cassandra/log/system.log</file>
```

Edit the bashrc file

- Open the bashrc file:

```
sudo gedit ~/.bashrc
```

- Go to end of the file and add following lines.

```
export CASSANDRA_HOME=/usr/lib/cassandra  
export PATH=$PATH:$CASSANDRA_HOME/bin
```

- Type following command to make it in effect:

```
source ~/.bashrc
```


Start the cassandra

- Start the cassandra by following command:

```
cassandra -f
```

- Keep this process running at foreground.
- Open another tab in the terminal (ctrl+shift+t) and type:

```
cqlsh
```

Cassandra shell

```
rashmi@rashmi-dell:~$ cqlsh
Connected to Test Cluster at 127.0.0.1:9042.
[cqlsh 5.0.1 | Cassandra 2.2.4 | CQL spec 3.3.1 | Native protocol v4]
Use HELP for help.
cqlsh>
```

Cassandra shell

```
cqlsh> CREATE KEYSPACE mykeyspace
... WITH REPLICATION = { 'class' : 'SimpleStrategy', 'replication_factor' : 1 };
cqlsh> use mykeyspace ;
cqlsh:mykeyspace> create table mitu (
... emp_no int PRIMARY KEY,
... ename text,
... esalary text);
```

Cassandra shell

```
cqlsh:mykeyspace> insert into mitu (emp_no, ename, esalary) values (1, 'rajesh', '12000');  
cqlsh:mykeyspace> insert into mitu (emp_no, ename, esalary) values (2, 'amita', '20000');  
cqlsh:mykeyspace> insert into mitu (emp_no, ename, esalary) values (3, 'heena', '6000');  
cqlsh:mykeyspace> insert into mitu (emp_no, ename, esalary) values (4, 'akshay', '16000');  
cqlsh:mykeyspace> select * from mitu;
```

emp_no	ename	esalary
1	rajesh	12000
2	amita	20000
4	akshay	16000
3	heena	6000

(4 rows)

Cassandra shell

Thank you

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Web Resources

<http://mitu.co.in>
<http://tusharkute.com>

Blogs

<http://digitallocha.blogspot.in>
<http://kyamputar.blogspot.in>

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