

BTS – MBDS

Big Data Infrastructure

A7: Cassandra Column DB

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1. Cassandra Column DB

Docker Run

```
> 65_Big_Data_Infra > master +2 !1 ?44  
> docker run -e DS_LICENSE=accept --name my-dse -p 9042:9042 -d datastax/dse-server:6.8.8
```

Testing connection to server

```
> telnet 0.0.0.0 9042  
Trying 0.0.0.0...  
Connected to 0.0.0.0.  
Escape character is '^]'.  
█
```

Testing in Python - create keyspace

```
In [1]: from cassandra.cluster import Cluster  
cluster = Cluster()  
  
In [2]: session = cluster.connect()  
  
In [ ]: query = session.execute("""CREATE KEYSPACE emp  
WITH replication = {'class':'SimpleStrategy', 'replication_factor' : 1};""")  
  
In [3]: query = session.execute("""SELECT * FROM system_schema.keyspaces;""")  
for row in query:  
    print(row[0])  
  
system_auth  
system_schema  
dse_system_local  
dse_system  
dse_leases  
solr_admin  
dse_insights  
dse_insights_local  
tutorialspoint  
system_distributed  
system_backups  
system  
emp  
dse_perf  
system_traces  
dse_security
```

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Create table

```
|: query = session.execute("""CREATE TABLE emp(  
    emp_id int PRIMARY KEY,  
    emp_name text,  
    emp_city text,  
    emp_sal varint,  
    emp_phone varint  
);""")  
  
for row in query:  
    print(row)
```

Add data points and query it

```
strings = ["""INSERT INTO emp.emp (emp_id, emp_name, emp_city, emp_phone, emp_sal) VALUES(1,'ram', 'Hyderabad', 9848022338, 50000)""",  
          """INSERT INTO emp.emp (emp_id, emp_name, emp_city, emp_phone, emp_sal) VALUES(2,'robin', 'Hyderabad', 9848022339, 40000)""",  
          """INSERT INTO emp.emp (emp_id, emp_name, emp_city, emp_phone, emp_sal) VALUES(3,'rahman', 'Chennai', 9848022330, 45000)"""]
```

```
for row in strings:  
    session.execute(row)
```

```
query = session.execute("""SELECT * FROM emp.emp;""")  
for row in query:  
    print(row)
```

```
Row(emp_id=1, emp_city='Hyderabad', emp_name='ram', emp_phone=9848022338, emp_sal=50000)  
Row(emp_id=2, emp_city='Hyderabad', emp_name='robin', emp_phone=9848022339, emp_sal=40000)  
Row(emp_id=3, emp_city='Chennai', emp_name='rahman', emp_phone=9848022330, emp_sal=45000)
```