Department of Computer Engineering
Academic Term: July-November 2023

Rubrics for Lab Experiments

Class : B.*E. Computer* **Subject Name :*BDA***
Semester : VII **Subject Code :**

Practical No:	6
Title:	Write a command to perform insert, create, update and delete Cassandra (NoSQL) database.
Date of Performance:	17-8-23
Roll No:	9427
Name of the Student:	Atharva Prashant Pawar

Evaluation:

Performance Indicator	Below average	Average	Good	Excellent	Marks
On time Submission (2)	Not submitted(0)	Submitted after deadline (1)	Early or on time submission(2)	---	
Test cases and output (4)	Incorrect output (1)	The expected output is verified only a for few test cases (2)	The expected output is Verified for all test cases but is not presentable (3)	Expected output is obtained for all test cases. Presentable and easy to follow (4)	
Coding efficiency (2)	The code is not structured at all (0)	The code is structured but not efficient (1)	The code is structured and efficient. (2)	-	
Knowledge(2)	Basic concepts not clear (0)	Understood the basic concepts (1)	Could explain the concept with suitable example (1.5)	Could relate the theory with real world application(2)	
Total					

Signature of the Teacher :

Aim: Write a command to perform insert, create, update and delete Cassandra (NoSQL) database

● Understand NoSQL databases architecture
● Understand commands to create database using cassendra
● Understand commands to insaert data using cassendra
● Understand commands to update data using cassendra
● Understand commands to delete data using cassendra

Steps for creating database:

Using Docker run Cassandra commands:
Commands for simple database creation:
1.Sudo apt install docker.io
2.sudo docker pull Cassandra:latest
3. sudo docker run –d --name cassandra-node –p 9042:9042 cassandra
(note: 9042 port reserverd for Cassandra)
4.sudo docker exec –it cassandra-node bash
5.cqlsh (note: cqlsh->Cassandra query language shell)
6.create keyspace test with replication={'class': 'SimpleStrategy', 'replication_factor':1};
(note:keyspace means database,here name of database is test)
7.use test;
8. create table student(s_id int primary key,s_name text,s_city text);
9. insert into student(s_id,s_name,s_city)values(1,'ABCD','Mumbai');
9. insert into student(s_id,s_name,s_city)values(2,'PQRS','Punei');
10.select * from student;

Create and Insert Operation :

```
cqlsh> use mydata;
cqlsh:mydata> create table student_data(roll INT PRIMARY KEY, name TEXT);
cqlsh:mydata> INSERT into student_data(roll,name) values(9427,'Atharva');
cqlsh:mydata> select * from student_data;

roll | name
-----+------
9427 | Atharva
```

Update Operation :

```
cqlsh:mydata> update mydata.student_data set name = 'AtharvaPawar' where roll=9427;

cqlsh:mydata> select * from student_data;

roll | name
-----+--------------
9427 | AtharvaPawar
```

Delete Operation:

```
cqlsh:mydata> delete from mydata.student_data where roll=9427;
cqlsh:mydata> select * from student_data;

roll | name
-----+--------------

(0 rows)
cqlsh:mydata>
```

Atharva Prashant Parkar (9427) BE comps - A

BDA Postlap - 6

Q1. What is map & what is reducer in Hadoop

⇒ The MapReducer programming model is divided into 2 phases.

(1) Map Phase:
It takes a set of i/p data & produces a set of intermediate key/value pairs.
Mapper function is responsible for reading the i/p data splitting it into key - value pairs & applying a user defined transformation to each pair.

(2) Reduce Phase:
Takes o/p from map phase & groups the key/value pairs by key. The reducer function is then responsible for combining the values associated with each key & producing a final o/p.

Q2. Mention what daemons run on a master node & slave nodes?

⇒ Master Node: NameNode, secondary NameNode, Job tracker, Resource Manager.

Slave Node: Data Node, Node Manager, Task Tracker.