Lab 3

Perform the following DB operations using Cassandra.

a)Create a keyspace by name Library

b) Create a column family by name Library-Info with attributes Stud_Id Primary Key, Counter_value of type Counter, Stud_Name, Book-Name, Book-Id, Date_of_issue

c) Insert the values into the table in batch

d) Display the details of the table created and increase the value of the counter

e) Write a query to show that a student with id 112 has taken a book "BDA" 2 times.

f) Export the created column to a csv file

g) Import a given csv dataset from local file system into Cassandra column family

```
cqlsh:employee> CREATE KEYSPACE Library WITH REPLICATION={'class':'SimpleStrategy', 'replication_factor':1};
cqlsh:employee> USE Library;
cqlsh:library> SHOW KEYSPACES;
Improper SHOW command.
cqlsh:library> DESCRIBE KEYSPACES;

system_virtual_schema  system_auth   system   system_distributed  system_traces
system_schema          system_views  library  employee

cqlsh:library> CREATE TABLE libinfo(
           ... studid INT PRIMARY KEY;
SyntaxException: line 2:22 mismatched input ';' expecting ')' (...libinfo(studid INT PRIMARY KEY[;])
cqlsh:library> CREATE TABLE libinfo(
           ... studid INT PRIMARY KEY,
           ... studname TEXT,
           ... bookname TEXT,
           ... bookid TEXT,
           ... dateofissue DATE
           ... );
```

```
cqlsh:library> CREATE TABLE bookcounter(
           ... studid INT,
           ... bookname TEXT,
           ... counterval COUNTER,
           ... PRIMARY KEY((studid), bookname)
           ... );
```

```
cqlsh:library> BEGIN BATCH
           ... INSERT INTO libinfo(studid, studname, bookname, bookid, dateofissue)
           ... VALUES(112, 'Rahul', 'BDA', 'B101', '2024-04-01');
           ... INSERT INTO libinfo(studid, studname, bookname, bookid, dateofissue)
           ... VALUES(113, 'Neha', 'ML', 'B102', '2024-04-02');
           ... INSERT INTO libinfo(studid, studname, bookname, bookid, dateofissue)
           ... VALUES(114, 'Aarohi', 'CC', 'B103', '2024-04-03');
           ... INSERT INTO libinfo(studid, studname, bookname, bookid, dateofissue)
           ... VALUES(115, 'Neil', 'RML', 'B104', '2024-04-04');
           ... APPLY BATCH;
cqlsh:library> UPDATE bookcounter
           ... SET counterval = counterval + 1
           ... WHERE studid=112 AND bookname='BDA';
cqlsh:library> UPDATE bookcounter
           ... SET counterval = counterval + 1
           ... WHERE studid=112 AND bookname='BDA';
cqlsh:library> SELECT * FROM bookcounter;

 studid | bookname | counterval
--------+----------+------------
    112 |      BDA |          2

(1 rows)
```

IMPORT:

COPY libinfo TO 'libinfo.csv' WITH HEADER=TRUE;

EXPORT:

COPY libinfo(studid, studname, bookname, bookid, dateofissue) FROM 'libinfo.csv' WITH HEADER=TRUE;