CASSANDRA

Perform the following DB operations using Cassandra.

1.Create a keyspace by name Library
2. 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.
3. Insert the values into the table in batch
4. Display the details of the table created and increase the value of the counter
5. Write a query to show that a student with id 112 has taken a book “BDA” 2 time
6. Export the created column to a csv file
7. Import a given csv dataset from local file system into Cassandra column family

Outputs:

```
cqlsh> CREATE KEYSPACE IF NOT EXISTS Library
   ... WITH replication = {'class': 'SimpleStrategy', 'replication_factor': 1};
```

```
cqlsh:library> CREATE TABLE libraryinfo (BookValue COUNTER,Stud_Id INT,Stud_Name TEXT,Book_Name TEXT,Book_Id TEXT,Date_of_issue TIMESTAMP,PRIMARY KEY(Stud_Id,Stud_Name,Book_Name,Book_Id,Date_of_issue));
```

```
cqlsh:library> UPDATE libraryinfo SET bookvalue = bookvalue + 1 WHERE Stud_Id = 101 AND Stud_Name = 'Alice' AND Book_Name = 'History of India' AND Book_Id = '201' AND Date_of_issue = '2024-05-09';
cqlsh:library> UPDATE libraryinfo SET bookvalue = bookvalue + 1 WHERE Stud_Id = 102 AND Stud_Name = 'John' AND Book_Name = 'Python' AND Book_Id = '203' AND Date_of_issue = '2024-02-09';
cqlsh:library> UPDATE libraryinfo SET bookvalue = bookvalue + 1 WHERE Stud_Id = 103 AND Stud_Name = 'Priya' AND Book_Name = 'C Fundamentals' AND Book_Id = '206' AND Date_of_issue = '2024-02-18';
cqlsh:library> UPDATE libraryinfo SET bookvalue = bookvalue + 1 WHERE Stud_Id = 104 AND Stud_Name = 'Shreya' AND Book_Name = 'Mechanical Engineering' AND Book_Id = '205' AND Date_of_issue = '2024-01-18';
```

```
cqlsh:library> select * from libraryinfo;

 stud_id | stud_name | book_name             | book_id | date_of_issue                | bookvalue
---------+-----------+-----------------------+---------+------------------------------+-----------
     104 |    Shreya | Mechanical Engineering |     205 | 2024-01-17 18:30:00.000000+0000 |         1
     102 |      John |                Python |     203 | 2024-02-08 18:30:00.000000+0000 |         1
     101 |     Alice |       History of India |     201 | 2024-05-08 18:30:00.000000+0000 |         1
     103 |     Priya |         C Fundamentals |     206 | 2024-02-17 18:30:00.000000+0000 |         1

(4 rows)
cqlsh:library> UPDATE libraryinfo SET bookvalue = bookvalue + 1 WHERE Stud_Id = 112 AND Stud_Name = 'Ashok' AND Book_Name = 'BDA' AND Book_Id = '210' AND Date_of_issue = '2023-08-18';
```

```
(5 rows)
cqlsh:library> select * from libraryinfo where Stud_Id=112;

 stud_id | stud_name | book_name | book_id | date_of_issue                   | bookvalue
---------+-----------+-----------+---------+---------------------------------+-----------
     112 |     Ashok |       BDA |     210 | 2023-08-17 18:30:00.000000+0000 |         2

(1 rows)
```

```
(5 rows)
cqlsh:library> copy libraryinfo (bookvalue,stud_id,stud_name,book_name,book_id,date_of_issue) TO 'Documents:\library.csv';
Using 16 child processes

Starting copy of library.libraryinfo with columns [bookvalue, stud_id, stud_name, book_name, book_id, date_of_issue].
Processed: 5 rows; Rate:      76 rows/s; Avg. rate:      76 rows/s
5 rows exported to 1 files in 0.100 seconds.
cqlsh:library>
```

```
cqlsh:library> copy libraryinfo (bookvalue,stud_id,stud_name,book_name,book_id,date_of_issue) FROM 'Documents:\library.csv';
Using 16 child processes

Starting copy of library.libraryinfo with columns [bookvalue, stud_id, stud_name, book_name, book_id, date_of_issue].
```