

LAB-4

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Perform the following DB operations using Cassandra:

1 Create a key space by name Library

```
cqlsh> CREATE KEYSPACE LIBRARY WITH replication = {'class':'SimpleStrategy','replication_factor':3};
cqlsh> Use LIBRARY;
cqlsh: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.

```
cqlsh:library> create table library_info(stud_id int, counter_value Counter, stud_name text, book_name text, date_of_issue timestamp, book_id int, PRIMARY KEY(stud_id,stud_name,book_name,date_of_issue,book_id));
```

```
cqlsh:library> select * from library.library_info;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
(0 rows)					

3. Insert the values into the table in batch

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 111 and stud_name = 'SAM' and book_name = 'VL' and date_of_issue = '2020-10-11' and book_id = 200;
```

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 112 and stud_name = 'SHAN' and book_name = 'BDA' and date_of_issue = '2020-09-21' and book_id = 300;
```

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 113 and stud_name = 'AYMAN' and book_name = 'OOMD' and date_of_issue = '2020-03-31' and book_id = 400;
```

```
cqlsh:library> select * from library.library_info;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	SAM	ML	2020-10-10 18:30:00.000000+0000	200	1
113	AYMAN	OOMD	2020-03-31 18:30:00.000000+0000	400	1
112	SHAN	BDA	2020-09-20 18:30:00.000000+0000	300	1

(3 rows)

4. Display the details of the table created and increase the value of the counter

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 112 and stud_name = 'SHAN' and book_name = 'BDA' and date_of_issue = '2020-09-21' and book_id = 300;
```

```
cqlsh:library> select * from library.library_info;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	SAM	ML	2020-10-10 18:30:00.000000+0000	200	1
113	AYMAN	OOMD	2020-03-31 18:30:00.000000+0000	400	1
112	SHAN	BDA	2020-09-20 18:30:00.000000+0000	300	2

(3 rows)

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

```
cqlsh:library> SELECT * FROM library_info WHERE stud_id = 112;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
112	SHAN	BDA	2020-09-20 18:30:00.000000+0000	300	2

(1 rows)

6. Export the created column to a csv file

```
cqlsh:library> COPY library_info(Stud_Id,Stud_Name,Book_Name,Book_Id,Date_Of_Issue,Counter_value) TO 'e:\\libraryInfo.csv';
Using 11 child processes

Starting copy of library.library_info with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].
Processed: 3 rows; Rate: 17 rows/s; Avg. rate: 17 rows/s
3 rows exported to 1 files in 0.284 seconds.
```

Text Import - [e:\\libraryInfo.csv]

Import

Character set:

Language:

From row: -

Separator Options

☐ Fixed width ☒ Separated by

☒ Tab ☒ Comma ☒ Semicolon ☐ Space ☐ Other

☐ Merge delimiters ☐ Trim spaces

String delimiter:

Other Options

☐ Format quoted field as text ☐ Detect special numbers

Fields

Column type:

	Standard	Standard	Standard	Standard	Standard	Standard
1	113	AYMAN	OOMD	498	2020-03-31 18:30:00.000+0000	1
2	111	SAH	HL	298	2020-10-10 18:30:00.000+0000	1
3	112	SHAWN	BDA	398	2020-09-20 18:30:00.000+0000	2

Help OK Cancel

7. Import a given csv dataset from local file system into Cassandra column family

```
cqlsh:library> create table library_info2(stud_id int, counter_value Counter, stud_name text,book_name text, date_of_issue timestamp, book_id int, PRIMARY KEY(stud_id,stud_name,book_name,date_of_issue,book_id));
```

```
cqlsh:library> SELECT * FROM library_info2;

stud_id | stud_name | book_name | date_of_issue | book_id | counter_value
-----+-----+-----+-----+-----+-----
(0 rows)
```

```
cqlsh:library> COPY library_info2(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) FROM 'e:\\libraryInfo.csv';
Using 11 child processes

Starting copy of library.library_info2 with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].
Processed: 3 rows; Rate: 5 rows/s; Avg. rate: 7 rows/s
3 rows imported from 1 files in 0.416 seconds (0 skipped).
```

