

Program 3

Question –

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
3. Display the details of the table created and increase the value of the counter
4. Write a query to show that a student with id 112 has taken a book “BDA” 2 times.
5. Export the created column to a csv file
6. Import a given csv dataset from local file system into Cassandra column family

1. Create a keyspace by name Library

```
CREATE KEYSPACE library WITH REPLICATION={ 'class' : 'SimpleStrategy',  
'replication_factor' : 1};
```

```
USE 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
```

```
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));
```

3. Insert the values into the table in batch

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

```
UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id
```

= 112 and stud_name = 'SHAAN' and book_name = 'BDA' and date_of_issue =
'2020-09-21' and book_id = 300;

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 = '2020-04-01' and book_id = 400;
SELECT * FROM library_info;

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

UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id
= 112 and stud_name = 'SHAAN' and book_name = 'BDA' and date_of_issue =
'2020-09-21' and book_id = 300;

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

SELECT * FROM library_info WHERE stud_id = 112;

6. Export the created column to a csv file

COPY

Library_Info(Stud_Id,Stud_Name,Book_Name,Book_Id,Date_Of_Issue,Counter_val
ue) TO 'e:\libraryInfo.csv';

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

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));

COPY

library_info2(stud_id, stud_name, book_name, book_id, date_of_issue, counter
_value) FROM 'e:\libraryInfo.csv';

```
cqlsh> CREATE KEYSPACE library WITH REPLICATION={ 'class' : 'SimpleStrategy', 'replication_factor' : 1};  
cqlsh> USE library;  
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> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 111 and stud_name = 'SAM' and book_name = 'ML' 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 = 'SHAAN' 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_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 | SHAAN | BDA | 2020-09-20 18:30:00.000000+0000 | 300 | 1
(3 rows)

cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 112 and stud_name = 'SHAAN' and book_name = 'BDA' and date_of_issue = '2020-09-21' and book_id = 300;
cqlsh:library> SELECT * FROM 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 | SHAAN | BDA | 2020-09-20 18:30:00.000000+0000 | 300 | 2
(3 rows)

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

stud_id | stud_name | book_name | date_of_issue | book_id | counter_value
-----+-----+-----+-----+-----+-----
112 | SHAAN | BDA | 2020-09-20 18:30:00.000000+0000 | 300 | 2
(1 rows)

cqlsh:library> COPY library_info2(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) FROM 'e:\libraryInfo.csv';
Using 3 child processes

Starting copy of library.library_info2 with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].

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> COPY library_info2(stud_id,stud_name,book_name,book_id,date_of_issue,counter_value) FROM 'e:\libraryInfo.csv';
Using 3 child processes

Starting copy of library.library_info2 with columns [stud_id, stud_name, book_name, book_id, date_of_issue, counter_value].

cqlsh:library> SELECT * FROM library_info2;

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 | SHAAN | BDA | 2020-09-20 18:30:00.000000+0000 | 300 | 2
(3 rows)

```