

BDA Lab-4

- 1 Create a key space 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 times.
6. Export the created column to a csv file
7. Import a given csv dataset from local file system into Cassandra column family

- 1 Create a key space by name Library

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

```
cqlsh> create keyspace Library with replication = {'class': 'SimpleStrategy', 'replication_factor':1}  
;  
cqlsh> describe keyspace  
Not in any keyspace.  
cqlsh> USE library;
```

2. Create a column family by name Library-Info with attributes Stud_Id Primary Key, Counter_value of type Counter,

```
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> 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,bo  
ok_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 = 'OOMB' and date_of_issue = '2020-04-01' and book_id = 400;

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 111 and stud_name = 'NIK' 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 = 'ANV' 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 = 'AMAN' and book_name = 'OOMB' and date_of_issue = '2020-04-01' and book_id = 400;
cqlsh:library> select * from library_info
... ;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	NIK	ML	2020-10-10 18:30:00.000000+0000	200	1
113	AMAN	OOMB	2020-03-31 18:30:00.000000+0000	400	1
112	ANV	BDA	2020-09-20 18:30:00.000000+0000	300	1

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;

```
cqlsh:library> UPDATE library_info SET counter_value = counter_value + 1 WHERE stud_id = 112 and stud_name = 'ANV' 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	NIK	ML	2020-10-10 18:30:00.000000+0000	200	1
113	AMAN	OOMB	2020-03-31 18:30:00.000000+0000	400	1
112	ANV	BDA	2020-09-20 18:30:00.000000+0000	300	2

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;

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

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

6. Export the created column to a csv file

COPY library_info (stud_id, stud_name , book_name , book_id , date_of_issue , counter_value) TO 'e:\libraryInfo.csv';

```
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:      18 rows/s; Avg. rate:      18 rows/s
3 rows exported to 1 files in 0.177 seconds.
cqlsh:library>
```

COPY library_info (stud_id, stud_name , book_name , book_id , date_of_issue , counter_value) 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: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));
```

```
AlreadyExists: Table 'library.library_info2' already exists
```

```
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: 6 rows/s; Avg. rate: 8 rows/s
```

```
3 rows imported from 1 files in 0.367 seconds (0 skipped).
```

```
cqlsh:library> select * from library_info2;
```

stud_id	stud_name	book_name	date_of_issue	book_id	counter_value
111	NIK	ML	2020-10-10 18:30:00.000000+0000	200	2
113	AMAN	OOMD	2020-03-31 18:30:00.000000+0000	400	2
112	ANV	BDA	2020-09-20 18:30:00.000000+0000	300	4

```
(3 rows)
```