# WEEK 5

1. Create a keyspace by name Library

```
cqlsh> CREATE KEYSPACE Library WITH REPLICATION = { 'class' : 'SimpleStrategy', 'replication_factor' : 1 };
cqlsh> show keyspaces;
Improper show command.
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 PRIMARY KEY,Counter_value counter,Stud_Name text,Book_Name text,Book_Id text,Da
te_of_issue timestamp);
InvalidRequest: Error from server: code=2200 [Invalid query] message="Cannot mix counter and non counter columns in the same table"
cqlsh:library> CREATE TABLE Library_Info (
           ...     Stud_Id int PRIMARY KEY,
           ...     Stud_Name text,
           ...     Book_Name text,
           ...     Book_Id text,
           ...     Date_of_issue timestamp
           ... );
cqlsh:library> CREATE TABLE Library_Counters (
           ...     Stud_Id int PRIMARY KEY,
           ...     Counter_value counter
           ... );
cqlsh:library>
```

3. Insert the values into the table in batch

```
cqlsh:library> BEGIN BATCH
           ... INSERT INTO Library_Info (Stud_Id, Stud_Name, Book_Name, Book_Id, Date_of_issue) VALUES (112, 'John Doe', 'BDA', 'B001
', '2023-01-01');
           ... INSERT INTO Library_Info (Stud_Id, Stud_Name, Book_Name, Book_Id, Date_of_issue) VALUES (113, 'Jane Smith', 'ML', 'B00
2', '2023-01-02');
           ... APPLY BATCH;
```

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

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

 stud_id | book_id | book_name | date_of_issue                   | stud_name
---------+---------+-----------+---------------------------------+------------
     113 |    B002 |        ML | 2023-01-02 00:00:00.000000+0000 | Jane Smith
     112 |    B001 |       BDA | 2023-01-01 00:00:00.000000+0000 |   John Doe

(2 rows)
cqlsh:library> SELECT * FROM Library_Counters;

 stud_id | counter_value
---------+---------------
     113 |             1
     112 |             1

(2 rows)
```

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

```
cqlsh:library> UPDATE Library_Counters SET Counter_value = Counter_value + 1 WHERE Stud_Id = 112;
cqlsh:library> SELECT * FROM Library_Counters WHERE Stud_Id = 112;

 stud_id | counter_value
---------+---------------
     112 |             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) TO 'file.csv' WITH HEADER = TRUE;
Using 11 child processes

Starting copy of library.library_info with columns [stud_id, stud_name, book_name, book_id, date_of_issue].
Processed: 2 rows; Rate:      10 rows/s; Avg. rate:       6 rows/s
2 rows exported to 1 files in 0.374 seconds.
cqlsh:library> COPY Library_Counters (Stud_Id, Counter_value) FROM 'library_counters.csv' WITH HEADER = TRUE;
Using 11 child processes
```

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

```
cqlsh:library> copy library_info(Stud_Id,Stud_Name,Book_Name,Book_Id,Date_of_issue) from 'file.csv' with header=true;
Using 7 child processes

Starting copy of library.library_info with columns [stud_id, stud_name, book_name, book_id, date_of_issue].
Processed: 2 rows; Rate:       2 rows/s; Avg. rate:       4 rows/s
2 rows imported from 1 files in 0.513 seconds (0 skipped).
cqlsh:library> select * from library_info;

 stud_id | book_id | book_name | date_of_issue                   | stud_name
---------+---------+-----------+---------------------------------+------------
     113 |    B002 |        ML | 2023-01-02 00:00:00.000000+0000 | Jane Smith
     112 |    B001 |       BDA | 2023-01-01 00:00:00.000000+0000 |   John Doe
```