

II. Perform the following DB operations using Cassandra.

1. Create a keyspace by name

Library

```
cqlsh> create keyspace Library with replication={ 'class': 'SimpleStrategy', 'replication_factor': '3' };
```

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> use Library;
```

```
cqlsh:library> create table Library_info(student_id int, counter_value counter, student_name text, book_name text, book_id int, date_of_issue date, primary key(student_id, student_name, book_name, book_id, date_of_issue));
```

3. Insert the values into the table in batch

```
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=112 and student_name='Mohan' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=112 and student_name='Mohan' and book_name='BDA' and book_id=220 and date_of_issue='2020-6-4';
cqlsh:library> select * from library_info;
```

```
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=120 and student_name='varshitha' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=121 and student_name='Harshitha' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=122 and student_name='Kavitha' and book_name='DSR' and book_id=221 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=123 and student_name='Hitha' and book_name='ML' and book_id=222 and date_of_issue='2020-2-2';
cqlsh:library> select * from library_info;
```

student_id	student_name	book_name	book_id	date_of_issue	counter_value
120	varshitha	BDA	220	2020-02-02	1
123	Hitha	ML	222	2020-02-02	1
122	Kavitha	DSR	221	2020-02-02	1
121	Harshitha	BDA	220	2020-02-02	1

(4 rows)

112	Mohan	BDA	220	2020-02-02	1
112	Mohan	BDA	220	2020-06-04	1

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

```
python3:ception: line 1:59: mismatched input '}', expecting <argument> (...: library_info set counter_value=counter_value+1;);
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=120 and student_name='varshitha' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=121 and student_name='Harshitha' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=122 and student_name='Kavitha' and book_name='DSR' and book_id=221 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=123 and student_name='Hitha' and book_name='ML' and book_id=222 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=112 and student_name='Mohan' and book_name='BDA' and book_id=220 and date_of_issue='2020-2-2';
cqlsh:library> update library_info set counter_value=counter_value+1 where student_id=112 and student_name='Mohan' and book_name='BDA' and book_id=220 and date_of_issue='2020-6-4';
cqlsh:library> select * from library_info;
```

student_id	student_name	book_name	book_id	date_of_issue	counter_value
120	varshitha	BDA	220	2020-02-02	2
123	Hitha	ML	222	2020-02-02	2
122	Kavitha	DSR	221	2020-02-02	2
121	Harshitha	BDA	220	2020-02-02	2
112	Mohan	BDA	220	2020-02-02	2
112	Mohan	BDA	220	2020-06-04	2

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 student_id=112 and student_name='Mohan' and book_name='BDA' and book_id=220 ;
```

student_id	student_name	book_name	book_id	date_of_issue	counter_value
112	Mohan	BDA	220	2020-02-02	2
112	Mohan	BDA	220	2020-06-04	2

(2 rows)

6. Export the created column to a csv file

```
cqlsh:library> copy library_info(student_id, counter_value, student_name, book_name, book_id, date_of_issue) to 'library.csv';
Using 3 child processes

Starting copy of library.library_info with columns [student_id, counter_value, student_name, book_name, book_id, date_of_issue].
Processed: 6 rows; Rate:      12 rows/s; Avg. rate:      4 rows/s
6 rows exported to 1 files in 1.727 seconds.
```

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

```
cqlsh:library> create table library_output(student_id int, counter_value counter, student_name text, book_name text, book_id int, date_of_issue date, primary key(student_id, student_name, book_name, book_id, date_of_issue));
cqlsh:library> copy library_output from library.csv with HEADER=TRUE;
Improper copy command.
cqlsh:library> copy library_output from 'library.csv' with HEADER=TRUE;
Using 3 child processes

Starting copy of library.library_output with columns [student_id, student_name, book_name, book_id, date_of_issue, counter_value].
Failed to import 5 rows: SyntaxException - line 1:66 mismatched input '-02' expecting K_WHERE (....library_output SET counter_value=counter_value+2020[-02]...), will retry later, attempt 1 of 5
Failed to import 5 rows: SyntaxException - line 1:66 mismatched input '-02' expecting K_WHERE (....library_output SET counter_value=counter_value+2020[-02]...), will retry later, attempt 2 of 5
Failed to import 5 rows: SyntaxException - line 1:66 mismatched input '-02' expecting K_WHERE (....library_output SET counter_value=counter_value+2020[-02]...), will retry later, attempt 3 of 5
Failed to import 5 rows: SyntaxException - line 1:66 mismatched input '-02' expecting K_WHERE (....library_output SET counter_value=counter_value+2020[-02]...), will retry later, attempt 4 of 5
Failed to import 5 rows: SyntaxException - line 1:66 mismatched input '-02' expecting K_WHERE (....library_output SET counter_value=counter_value+2020[-02]...), given up after 5 attempts
bb96859b\cassandra\cluster.py", line 2850, in shutdown
    self._connection.close()
    self._connection.close()
    self._connection.close()
File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 373, in close
    File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 373, in close
    File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 373, in close
    AsyncoreConnection.create_timer(0, partial(asyncore.dispatcher.close, self))
    AsyncoreConnection.create_timer(0, partial(asyncore.dispatcher.close, self))
    AsyncoreConnection.create_timer(0, partial(asyncore.dispatcher.close, self))
    File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 335, in create_timer
    File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 335, in create_timer
    File "C:\Program Files\apache-cassandra-3.11.8\bin\..\lib\cassandra-driver-internal-only-3.11.0-bb96859b.zip\cassandra-driver-3.11.0-bb96859b\cassandra\io\asyncoreactor.py", line 335, in create_timer
    cls.loop.add_timer(timer)
    cls.loop.add_timer(timer)
    cls.loop.add_timer(timer)
AttributeError: 'NoneType' object has no attribute 'add_timer'
AttributeError: 'NoneType' object has no attribute 'add_timer'
AttributeError: 'NoneType' object has no attribute 'add_timer'
Processed: 5 rows; Rate:      2 rows/s; Avg. rate:      3 rows/s
5 rows imported from 1 files in 1.622 seconds (0 skipped).
```

student_id	student_name	book_name	book_id	date_of_issue	counter_value
120	varshitha	BDA	220	2020-02-02	2
123	Hitha	ML	222	2020-02-02	2
122	Kavitha	DSR	221	2020-02-02	2
121	Harshitha	BDA	220	2020-02-02	2
112	Mohan	BDA	220	2020-02-02	2
112	Mohan	BDA	220	2020-06-04	2

(6 rows)

```
cqlsh:library> copy library_info from 'library.csv' with HEADER=TRUE;
```