

Aayush Shah

19BCE245

17 November 2022

# Big Data Analytics

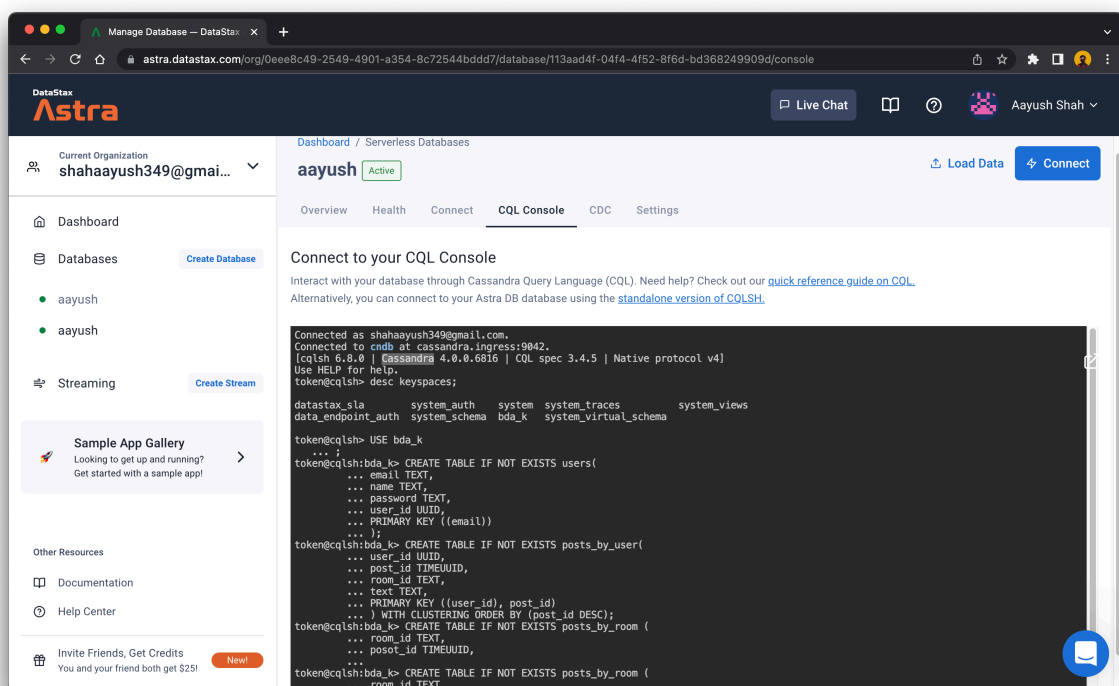
## Practical 9

### Aim

CRUD operations in Cassandra

### Setting up

Interface of [astra.datastax.com](https://astra.datastax.com)



Created tables : users, posts\_by\_user, posts\_by\_room

Specified data types for each fields.

Insert data in *users* table :

```
token@cqlsh:bda_k> INSERT INTO users (email, name, password, user_id) VALUES ( 'niyati@shah.com', 'Niyati Shah', 'ipad', 11111111-1111-1111-1111-222222222222);
token@cqlsh:bda_k> INSERT INTO users (email, name, password, user_id) VALUES ( 'kamini@shah.com', 'Kamini Shah', 'samsung', 11111111-1111-1111-3333-222222222222);
token@cqlsh:bda_k>
```

Insert data in *posts\_by\_user* table :

```
token@cqlsh:bda_k> INSERT INTO posts_by_user (user_id, post_id, room_id, text) VALUES ( 11111111-1111-1111-3333-222222222222, 22222222-5cfff-11ec-be16-1fedb0dfd057, 'hellobro', 'nothing serious');
token@cqlsh:bda_k> INSERT INTO posts_by_user (user_id, post_id, room_id, text) VALUES ( 11111111-1111-1111-3333-222222222222, 22222222-5cfff-11ec-be16-1fedb0dfd057, 'byebro', 'nothing fancy');
```

Insert data in *posts\_by\_room* table :

```
token@cqlsh:bda_k> INSERT INTO posts_by_room (user_id, post_id, room_id, text) VALUES ( 11111111-1111-1111-1111-111111111111, 22222222-5cfff-11ec-be16-1fedb0dfd057, '#running', 'I climbed Mt. Gumbo yesterday with my pet dog!...');
token@cqlsh:bda_k> INSERT INTO posts_by_room (user_id, post_id, room_id, text) VALUES ( 11111111-1111-1111-1111-4444-111111111111, 44444444-5cfff-11ec-be16-1fedb0dfd057, '#working_out', 'Literally me!...');
```

View data in *posts\_by\_room* table with different filters :

```
token@cqlsh:bda_k> SELECT * FROM posts_by_room;

room_id | post_id | text | user_id
-----|-----|-----|-----
#running | 22222222-5cfff-11ec-be16-1fedb0dfd057 | I climbed Mt. Gumbo yesterday with my pet dog!... | 11111111-1111-1111-1111-111111111111
#working_out | 44444444-5cfff-11ec-be16-1fedb0dfd057 | Literally me!... | 11111111-1111-1111-4444-111111111111
(2 rows)
token@cqlsh:bda_k> SELECT post_id, text, user_id FROM posts_by_room;

post_id | text | user_id
-----|-----|-----
22222222-5cfff-11ec-be16-1fedb0dfd057 | I climbed Mt. Gumbo yesterday with my pet dog!... | 11111111-1111-1111-1111-111111111111
44444444-5cfff-11ec-be16-1fedb0dfd057 | Literally me!... | 11111111-1111-1111-4444-111111111111
(2 rows)
token@cqlsh:bda_k> SELECT room_id, text FROM posts_by_room WHERE room_id='#working_out';

room_id | text
-----|-----
#working_out | Literally me!...
(1 rows)
```

Update data in *posts\_by\_room* table :

- Table before the update and after the update :

```
\token@cqlsh:bda_k>SELECT * from posts_by_room;

room_id | post_id | text | user_id
-----|-----|-----|-----
#running | 22222222-5cfff-11ec-be16-1fedb0dfd057 | I climbed Mt. Gumbo yesterday with my pet dog!... | 11111111-1111-1111-1111-111111111111
#working_out | 44444444-5cfff-11ec-be16-1fedb0dfd057 | Literally me!... | 11111111-1111-1111-4444-111111111111
(2 rows)
token@cqlsh:bda_k> UPDATE posts_by_room
... SET text = 'Literally me working out daily!'
... WHERE room_id = '#working_out'
... AND post_id = 44444444-5cfff-11ec-be16-1fedb0dfd057;
token@cqlsh:bda_k> SELECT * from posts_by_room;

room_id | post_id | text | user_id
-----|-----|-----|-----
#running | 22222222-5cfff-11ec-be16-1fedb0dfd057 | I climbed Mt. Gumbo yesterday with my pet dog!... | 11111111-1111-1111-1111-111111111111
#working_out | 44444444-5cfff-11ec-be16-1fedb0dfd057 | Literally me working out daily! | 11111111-1111-1111-4444-111111111111
```

Delete data in *posts\_by\_room* table :

- State of table after deletion operation is given:

```
token@cqlsh:bda_k> DELETE FROM posts_by_room WHERE post_id = 22222222-5cff-11ec-be16-1fedb0dfd057 AND room_id = '#running';
token@cqlsh:bda_k> SELECT * from posts_by_room;
```

room_id	post_id	text	user_id
#working_out	44444444-5cff-11ec-be16-1fedb0dfd057	Literally me working out daily!	11111111-1111-1111-4444-111111111111

(1 rows)

## Conclusion

From this practical, I performed various CRUD database operations in *Cassandra Query Language (CQL)*. I used Cassandra online <https://astra.datastax.com/> and used it's CQL console. Moreover, I came to know that CQL treats the database (**Keyspace**) as a container of tables. Programmers use **cqlsh** a prompt to work with CQL.