**CQL ASSESSMENT 20/03/2025**

1. Create a keyspace:

create keyspace EcommerceCatalog with replication = {'class': 'SimpleStrategy', 'replication\_factor': 1};

1. Use the Keyspace:

use EcommerceCatalog;

1. Create the Categories Table:

create table categories(

... category\_id UUID primary key,

... category\_name text,

... description text);

… select \* from categories;

1. Create the Brands Table:

create table brands(

... brand\_id uuid primary key,

... brand\_name text,

... country\_of\_origin text);

… select \* from brands;

1. Create the Product Table:

create table products(

... product\_id uuid primary key,

... product\_name text,

... category\_id uuid,

... brand\_id uuid,

... price decimal,

... inventory\_count int,

... description text);

1. Insert Records into Categories Table:

insert into categories(category\_id,category\_name,description) values (uuid(),'Electronics','Electronic devices');

insert into categories(category\_id,category\_name,description) values (uuid(),'Computers','Laptops and desktops');

insert into categories(category\_id,category\_name,description) values (uuid(),'Smartphones','Mobile phones');

insert into categories(category\_id,category\_name,description) values (uuid(),'Clothing','Apparel');

insert into categories(category\_id,category\_name,description) values (uuid(),'Menswear','Chlothing for men');

insert into categories(category\_id,category\_name,description) values (uuid(),'Womenswear','Chlothing for women');

select \* from categories;

1. Insert Records into Brands Table:

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'TechCorp','USA');

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'StyleGen','Italy');

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'MobilePro','China');

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'FashionFit','UK');

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'ElectroMax','Japan');

insert into brands(brand\_id,brand\_name,country\_of\_origin) values(uuid(),'HomeStyle','Canada');

select \* from brands;

1. Insert Records into Products Table:

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values(uuid(),'Laptop X

100',53fb1e3a-b225-4bd2-a0f7-17482076b4a2,d8e2f19e-c84b-4284-9781-96589704bc65,1200.00,50,'High-performance laptop');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values(uuid(),'Smartphone Z5',cf42660b-4089-4f30-bf0e-11a0740567cd,8a7531bf-2e87-4514-9772-84f740a7b4f2,800.00,100,'Latest smartphones');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Mens S

hirt', 031e24e0-a59a-4de0-b7d6-b8491a5deb30, d9cfeccc-ed87-4155-8b24-5967ed80f8e9,50.00,150,'Classic shirt');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Womens Dress',3a3c2361-fc3a-440a-9738-3b5583aa520b,8f26fb5b-e286-4d88-b7ed-38dc85f15adf,120.00,110,'Elegant dress');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Desktop Pro 2000',53fb1e3a-b225-4bd2-a0f7-17482076b4a2,406525f8-61cf-4a84-a098-902df043f5e1,1500.00,30,'Powerful desktop');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Smartphone Lite',cf42660b-4089-4f30-bf0e-11a0740567cd,8a7531bf-2e87-4514-9772-84f740a7b4f2,300.00,200,'Budget phone');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Mens Pants',031e24e0-a59a-4de0-b7d6-b8491a5deb30,8f26fb5b-e286-4d88-b7ed-38dc85f15adf,75.00,120,'Comfortable pants');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Womens Blouse',8f26fb5b-e286-4d88-b7ed-38dc85f15adf,d9cfeccc-ed87-4155-8b24-5967ed80f8e9,80.00,130,'Stylish blouse');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Laptop Mini',53fb1e3a-b225-4bd2-a0f7-17482076b4a2,d8e2f19e-c84b-4284-9781-96589704bc65,700.00,80,'Portable laptop');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(), 'Smartphone Pro',cf42660b-4089-4f30-bf0e-11a0740567cd,406525f8-61cf-4a84-a098-902df043f5e1,1100.00,60,'Professional phone');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(),'Mens jacket',031e24e0-a59a-4de0-b7d6-b8491a5deb30,d8e2f19e-c84b-4284-9781-96589704bc65,150.00,90,'Warm Jacket');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(),'Womens skirt',3a3c2361-fc3a-440a-9738-3b5583aa520b,8f26fb5b-e286-4d88-b7ed-38dc85f15adf,60.00,190,'Casual skirt');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(),'Tablet Pro',53fb1e3a-b225-4bd2-a0f7-17482076b4a2,406525f8-61cf-4a84-a098-902df043f5e1,900.00,70,'Professional tablet');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(),'Headphones Wireless',c23b384c-b086-4720-9041-e0a3926f7531,8a7531bf-2e87-4514-9772-84f740a7b4f2,180.00,160,'High quality headphones');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values (uuid(),'Smart TV',8a7531bf-2e87-4514-9772-84f740a7b4f2,653b3b28-fbba-4965-ab1f-1c5c109ea221,600.00,400,'Smart television');

select \* from products;

1. Batch Insert Records:

begin batch

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values(uuid(),'Sport T-Shirt',031e24e0-a59a-4de0-b7d6-b8491a5deb30,8f26fb5b-e286-4d88-b7ed-38dc85f15adf,40.00,250,'Sporty T-shirt');

insert into products(product\_id,product\_name,category\_id,brand\_id,price,inventory\_count,description) values(uuid(),'Portable SSD',8f26fb5b-e286-4d88-b7ed-38dc85f15adf, d8e2f19e-c84b-4284-9781-96589704bc65,120.00,140,'Fast portable storage');

update products set price = 1250.00 where product\_id = 3d9dd865-9dd5-4614-bb48-911889da468f;

delete from products where product\_id = 84424be9-7c3b-4215-b983-86a6df7b19df;

apply batch;

select \* from products;

1. Update a Record:

update products set description = 'Premium classic shirt' where product\_id = 7f7d668f-4710-4d71-927b-7d6ffd58d219;

1. Delete a Record:

delete from brands where brand\_id = 653b3b28-fbba-4965-ab1f-1c5c109ea221;

1. Create an Index:

create INDEX cateid\_idx on products (category\_id);

1. Query the Products Table:

select \* from products where price > 500.00 allow filtering;

1. Retrieve Products by Brand:

select \* from Products where brand\_id= d8e2f19e-c84b-4284-9781-96589704bc65 allow filtering;

1. Calculate the Average Price:

select avg(price) from products where category\_id = uuid() allow filtering;

1. Find the Minimum Inventory Count:

SELECT MIN(inventory\_count) FROM products where product\_id = uuid() allow filtering;

1. Find the Maximum Inventory Count:

SELECT MAX(inventory\_count) FROM products where product\_id = uuid() allow filtering;

1. Count Products in a Category:

Select count(category\_id) from products where category\_id = uuid();

1. Count Brands from a Country

select count (\*) from Brands where brand\_id=406525f8-61cf-4a84-a098-902df043f5e1;