CRUD operations in graph databases

Perform Graph QL / Neous graph space design for recommendation engine's Also Perform CRUD operations like creating

Aim:-

To perform CRUD operations like creating, inserting, querifying, finding, deleting operations on graph space

Create Node with properties

Properties are the key-value pairs using which a node store data. You can create a node with properties using the CREATE clause you need to specify these properties

Syntax

Following is the syntax to create a node with properties

CREATE (node:label { key-1:value, key-2:value ... })

Returning the created node

To verify the creation of the node type and execute the following query in the

Creating Relationships

We can create a relationship using the CREATE clause we will specify relationship within the square braces '[]' depending on the direction of the relationship it is placed between hyphen "-" and arrow "→"

Syntax

Following is the syntax to create a relationship using the create clause CREATE (node1)-[:Relationship Type]→(node 2)

CREATING a Relationship Between the Existing node

You can also create a relationship using the match clause

MATCH (a:Label of node1), (b:label of node2)
WHERE a.name = "name of node1" AND
b.name = "name of node2"
CREATE (a)-[:Relations]→(b)
Return a,b

Deleting a particular Node

To delete a particular node you need to specify the details of the node in the place of "n" in the above query

Syntax

Following is the syntax to delete a particular node from neous using the DELETE clause

```
MATCH (node : label {properties...})
DETACH DELETE node
```

Create a graph database for student course registration ; Create student and dept node insert values

1. Create Nodes:

```
CREATE (n:Student {sid = "VTU14500",
sname = "John", dept name = "CSE"})
```

Output :- Added 1 label, created node, Sept 3, properties

2. Match command to select All Student nodes :-

MATCH (n) Return n

3. Match command to select All student nodes :-

MATCH (n:Student) RETURN n.

4. Create Relationship Between Students and Departments with Arrows (Directed Relationships)

a. Create Relationships for student "vijay" with Department "CSE"

MATCH (s:Student), (d:dept)
WHERE s.Sname = 'Vijay' AND d.department = 'CSE',

CREATE (s)-[St:STUDIED_AT]->[d]

b. Create Relationship for student "John" with department "CSE"

MATCH (s:Student), (d:dept)
WHERE s.Sname = 'John' AND d.departmet = 'csf' CREATE (s)-[St:Studied_AT]->[d]
RETURN s, st, d

5. MATCH All Nodes And Relationships (In the output):

MATCH (n) RETURN n

o. This will return all nodes with the relationships and in the graph

6. Delete a node from student.

(Delete Dharsana):

MATCH (n:Student { s.name: 'Dharsana'}

DELETE n

output:

Deleted 1 node, completed after.

10834 ms

PERFORMANCE (5)	
RESULT AND ANALYSIS (3)	
VIVA VOCE (3)	
RECORD (4)	
TOTAL (15)	
SIGN WITH DATE	