

Task 11 - CRUD operations in graph Databases

Aim: To perform CRUD operations like creating, inserting, querying, finding, deleting operations on graph spaces

create Node with properties:

properties are the key-value pairs using which a node stores data. you can create a node with properties using the create clause.

Syntax:

following is the syntax to create a node with properties

CREATE

*Returning the created node

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

*creating a Relationship between existing nodes
you can also create a relationship between the existing nodes using match clause

Syntax

match (a: Label of Node1) (b: Label of Node2)

where a.name = "name of node1" AND b.name

create (a)-[:Relation]->(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

syntax.

Following is the syntax to delete a particular node from Neo4

```
MATCH (node:label [properties - -])
```

Detach Delete node

create a graph database for student course registration.

```
create (n: student [sid: "UTULU500",  
  sname: "John",  
  dept name: "CSE"]  
  )
```

out put

added 1 label, created 1 node, set 3 properties,
completed after 232 ms.

```
create (n: student (sid: "UTULU501",  
  sname: "Dharsana",  
  dept name: "EEE")
```

out put

added 1 label, created 1 node, set 3 properties,
completed after 232 ms.

```
create (w: student (sid: "UTULU502",  
  sname: "vijay",  
  dept name: "CSE"  
  )
```


out put:

added 1 label, created 1 node, set 2 properties
completed after 72 ms

select all the nodes in your database

* match (n) return (n)

out put:

viṭṭay

cse

Dhaxana

John

match (n: student) return (n)

out put:

viṭṭay

Dhaxana

John

a) create relationship between student and cs

match (s: student), (d: dept) where s. sname = 'viṭṭay'

AND d. deptname = 'cse'

create (s) - [st: studied - AT] -> (d)

return s, d

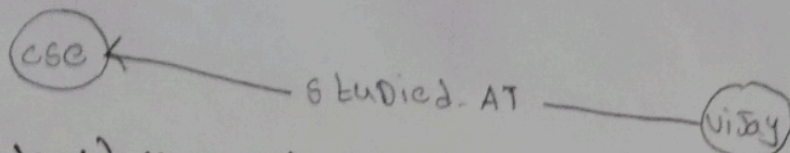
out put:

1. match (s: student), (d: dept) where s. sname = 'viṭṭay'

AND d. deptname = 'cse'

2. create (s) - [st: studied - AT] -> (d)

return: s, d

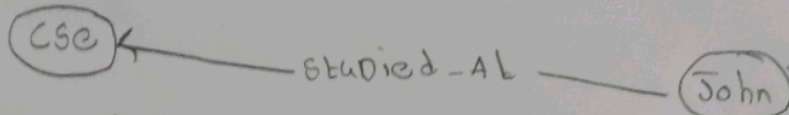


match (s:student), (d:dept) where s.sname = 'John'
AND d.deptname = 'cse'

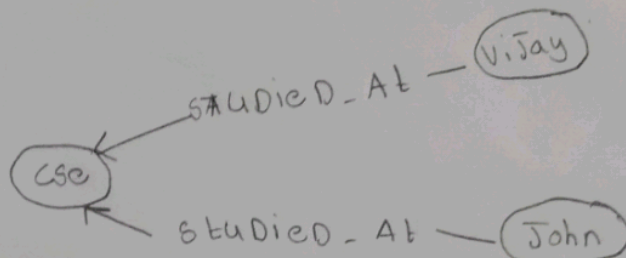
create (s) - [st:studied-AT] -> (d)

return s, d

out Put



match (n) return (n)

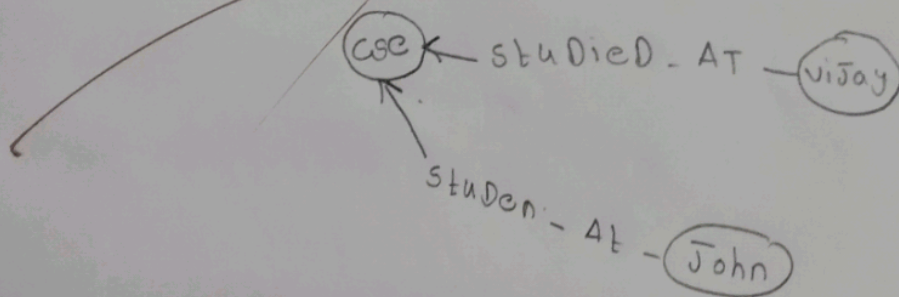


b) Delete a node from student

match (n:student {sname: 'Dharsana'}) Delete (n)

out Put:

Deleted 1 node, completed after 10834 ms



VEL TECH	
EX NO.	11
PERFORMANCE (5)	8
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	1
TOTAL (20)	19
SIGN WITH DATE	

Result: The implementation of CRUD operations like creating, inserting, finding and removing operation using Graph DB is successfully executed