

TASK 11: CRUD OPERATIONS IN GRAPH DATABASES

Date: 10/09/22

Aim:

To learn how to perform CRUD operations like creating, inserting, querying, finding, deleting operations on graph space.

1) 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 - you need to specify these properties separated by commas with in the braces " {} ".

Syntax:

Following is the syntax to create a node with properties.

~~(CREATE (node:label {key1:value1, key2:
value1, ...}))~~

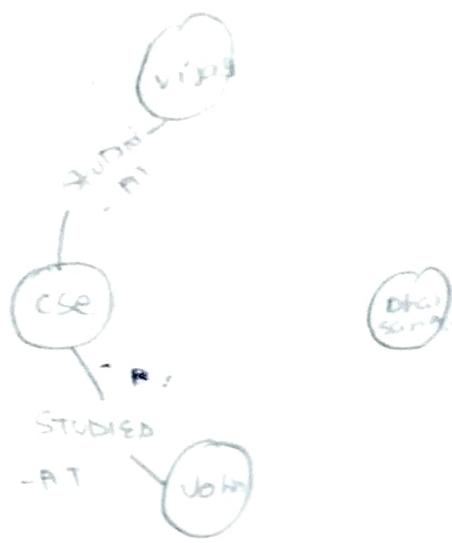
* Returning the Created Node

To verify the creation of the node, type and execute the following query in the Neo4j prompt -

```
MATCH(r) RETURN r
```

* Creating Relationships

We can create a relationship using the CREATE clause - we will specify relationship with in the square braces "[]" depending on the direction of the relationship it is placed before type tail "-" or of arrow "-->" as shown in the following syntax.



Syntax

Following is the syntax to create a relation step using the CREATE clause. We will specify relation with the square braces "[]" depending on the direction of the relation step it is placed between hyphen "-" and arrow " \rightarrow " as shown in the following syntax.

Syntax

Following is the syntax to create a relation step using the MATCH clause.

MATCH (a:Label of Node), (b: Label of Node)

WHERE a.name = "name of node 1" AND
b.name = "name of node 2"

CREATE (a)-[C:Relation]-(b)

RETURN a,b

A) Deleting - a particular node

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

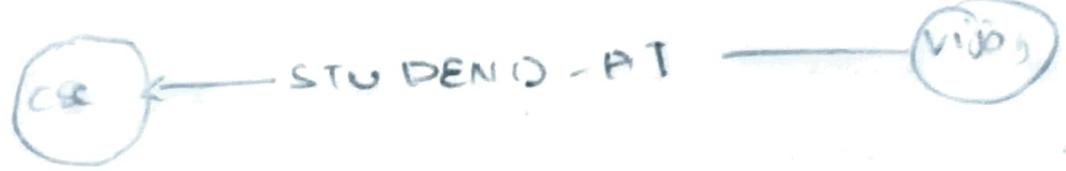
Syntax:

Following is the syntax to delete a particular node from Neo4j using the DELETE clause

MATCH (node:Label { properties... })

DETACH DELETE node

HUMAN
DATA



Create a graph database for efficient course registration & create student and dept node and its set values of properties.

create (n:student {sid: "VTV1450"})

name: "John",

dept name: "CSE")

)

OUTPUT

Added 1 label & created 1 node. Set 3 properties completed after 232 ms.

create (n:student {sid: "VTV1450"})

name: "Unijay",

dept name: "CSE")

})

OUTPUT

Added 1 label & created 1 node. Set 3 properties completed after 205 ms.

create (n:dept {dept name: "CSE", deptid: "d001"})

OUTPUT:

Added 1 label & created 1 node. Set 2 properties completed after 205 ms.

Select all the nodes in your database using match command
+ match (n) return(n)

VIT TECH CSE	
EX-NO:	11
DATE:	5/5/14
NAME:	Rakesh
PERIOD:	5

Result:- Thus the experiment was CRUD Operations on ORACLE DBATBOSS was successfully completed.