

14/10/25

Task III: CRUD operations in Graph Database

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

create Node with properties:

properties are the key values pair using with a node stores data.

You can create a nodes with properties using the CREATE

Clause, you need to specify these properties separated by commas within the flower braces "{}".

Syntax:- following is the syntax to create a node with properties

CREATE (Node: label {key1: value, key2: value, ...})

Returning the created Node:-

To verify the created of the node type and executed the following query in the dollar prompt

MATCH(n) RETURN n.

Create Relationship:-

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 "→" as shown in the following syntax.

Syntax:-

following is the syntax to create a relationship using the CREATE clause

CREATE (node 1) -[Relationship type]→ (node 2).

creating a Relationship between the existing nodes:-

You can also create a relationship between the existing nodes using the MATCH clause.

Syntax:-

following is the syntax to create a relationship using the MATCH clause.

match (a:label of Node 1), (b:label of Node 2)

Deleting a particular node:-

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

Syntax: following is the syntax:-

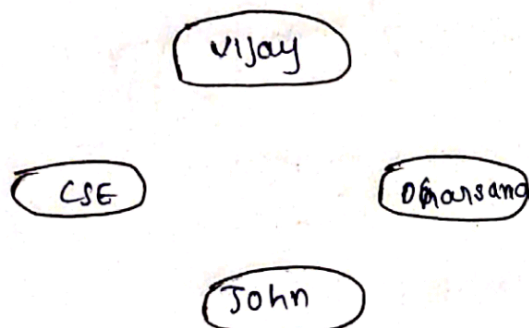
match (node:label {properties ...})

DETACH DELETE node.

Select all nodes in your database using match command

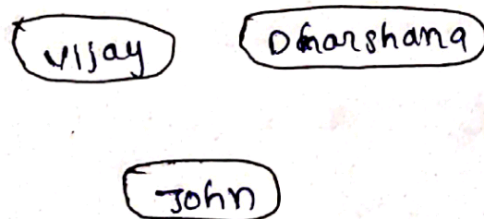
* match (n) return (n)

output:-



* match (n:student) return (n)

output:-



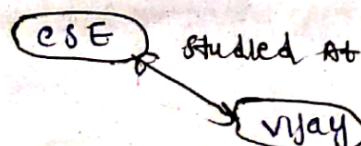
(a) create relationship between student and CSE

match (s:student), (d:dept) where s. sname = "vijay"

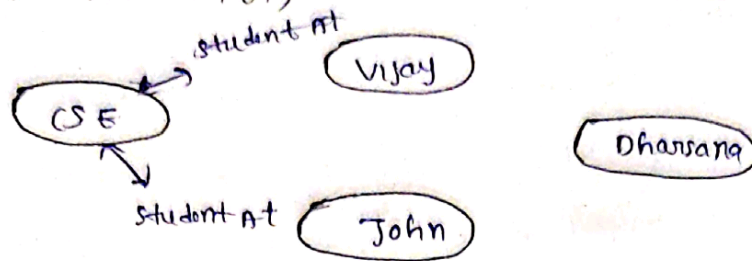
AND d.deptname = "CSE"

CREATE (s) -[is student - At] -> (d)

output:-
return s, d,



match (n) return (n)

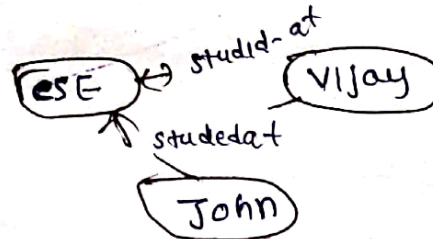


(b) Delete a node from student.

match (n: student {s name: "Dharsana"})
DELETE(n);

output:—

Deleted is Node, completed after 10834 ms.



VELTECH	
EX No.	4
PERFORMANCE (5)	6
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	15
TOTAL (20)	31
SIGN WITH DATE	17/10

Result:—

The implementation of CRUD operations like creating, insertion, finding and removing operation using Graph DB is successfully executed.