9-10-25

TASK-11: 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-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 within the flower braces "{}".

Syntax:

Following is the syntax to create a node with properties

Create (node:label{key1: value, key2: value, ... 3)

* Returning the created Node

To verify the creation of the node, type and execute the following query in the dollar prompt. MATCH(n) RETURN(n)

* Creating Relationships

We can create a Relationships using the create clause. we will specify relationship within the braces "[ ]"

Syntax:-

Create clause.

Create (node 1) - [:Relationship type] -> (node 2)

* Creating a Relationship b/w the existing nodes

Syntax:-

MATCH clause.

MATCH (a: Label of Node 1), (b: Label of Node 2)

WHere a.name = "name of node 1" and b.name = "name of node 2"

Create (a) - [:Relation] -> (b)

Return a, b

(*) Deleting a Particular Node

Syntax :-

using Delete clause

Delete clause.

MATCH (node : lable {Properties ....})
DETACH DELETE node

(*) Create a graph database for student course registration, create student and dept node and insert value of properties

create (n:student{sid:"VTU14500",
Sname:"John",
deptname:"cse"}
)

Create (n: student {sid:"VTU14501",
Sname:"vijay",
deptname:"cse"})

Create (n:dept {deptname:"cse", deptid:"d001"})

Select all the node in your database using match command

(*) match (n) return (n)

(*) match (n:student) return (n)

(a) Create relationship b/w student and cse

MATCH (s:student), (d:dept) where s.Sname='vijay' and d.dept name = 'cse'
create (s)-[st:studied_AT]->(d)
return s,d

*

Vijay

CSE

DharSana

John

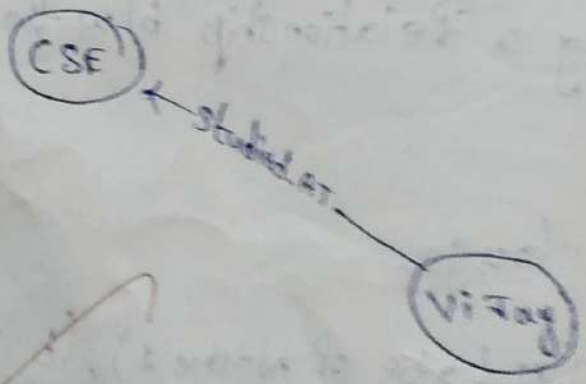
*

Vijay

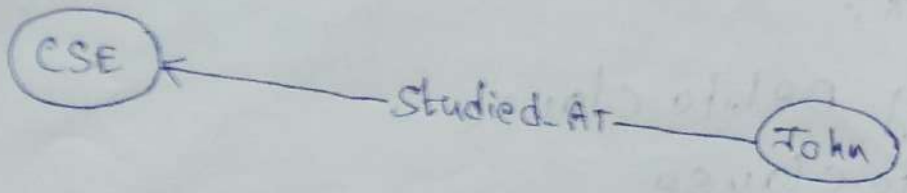
DharSana

John

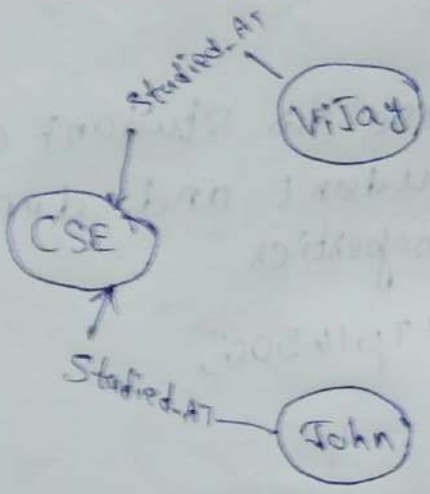
*



(*)

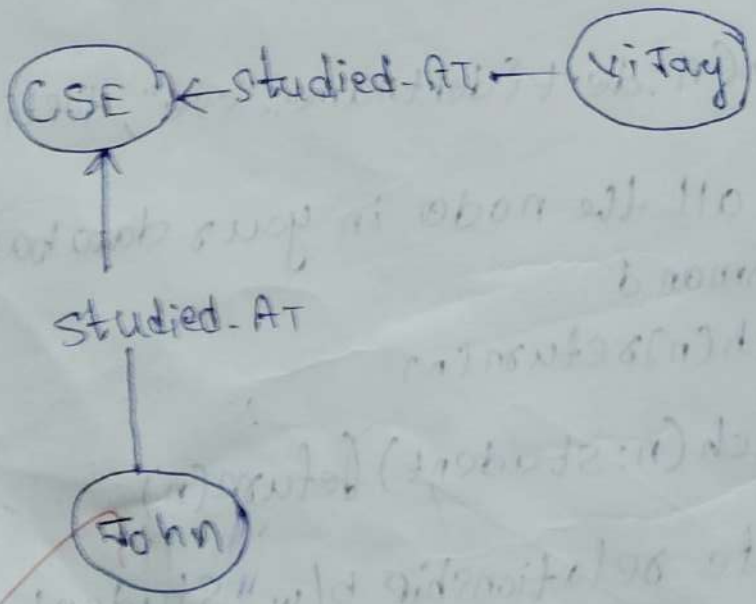

CSE
Studied_AT
John

(*)


Studied_AT
Vijay
CSE
Studied_AT
John

Dharsana

(*)


CSE
studied-AT
Vijay
Studied-AT
John

MATCH (S:Student), (d:dept) where S.Sname = 'John' and d.deptname = 'CSE'
create (s) - [St: Studied_At] -> (d)
return S, d.

(a) match (n) return (n)

(b) Delete a node from student

match (n:student {s name: 'Dharsana'}) Delete (n).

Result:- The implementation of Crud operation like creating, inserting finding and removing operations using graph DB is successfully executed.

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