

## Task 9:- CRUD operations in graph Database

Aim:- To perform CRUD like creating, inserting, updating, finally deleting operations on graph species.

The steps to get with Neo4j's free graph database:-

Step 1:- copy and paste the following link into your web browser.  
<https://neo4j.com/download/> (choose graph database)  
Vol = does - get started - download.

Step 2:- click on "Start Free".

Step 3:- choose the option to continue with google.

Step 4:- Click the "Open" button.

Step 5:- After clicking "Open", a text file will be automatically downloaded. This file contains your user IP and password details

Step 6:- Close the gets started with Neo 4j with beginner guides if its open.

Step 7:- you are now ready to begin practicing with graph Database

### Create node with properties:-

Properties key-value pair using which a node stores data, create a node with properties using CREATE clause and specify those properties separated by commas within braces brackets.

### Syntax:-

Syntax: CREATE Node: label {key1: value, key2: value ... }  
return node. To verify create or node, type and execute the following query in dollar prompt.

Syntax: - MATCH (n) RETURN n.

### Creating Relationship:-

To create a relationship using CREATE clause and specifying relationship within the square braces "[]", depending on direction of relationship it is placed below graph "—" arrow "→".

Syntax: CREATE (Node1) -[Relationship Type] -> (Node2).

Syntax: - CREATE (Node1) -(Relationship type)-> (Node2).

### Syntax:-

MATCH (a: label), (b: label)  
CREATE (a) -[:Relationship] -> (b) RETURN a, b.

Create a graph - database for student course registration, create student and dept node and their values or properties  
Create a cricket board node:

Create (CB: Cricket Board {Board ID: "B1001", Name: "Narayan Cricket Board"});

Address: "Chennai", Pho: 989776699} return a CB

Create Team nodes:

Create (T1: Team {Team ID: "C101", Name: "Raj", Address: "Adyar"});

Coach (G. RAMA), Captain: SAMARTH (Kumar) return T1

Create (T2: Team {Team ID: "C102", Board: "B1001", Name: "KAU"});

Coach:

T3, Captain: JOHN) return T2.



Create player node:

Create ( $P_1$ : Player {playerID: '1', TeamID: 'CCB01', Name: 'Raj', Age: 25, Date of Birth: '26-jun-1998', PlayingRole: 'Bowler', Email: 'raj@gmail.com'}, return  $P_1$ )

Create ( $P_2$ : Player {playerID: '3', TeamID: 'CCB01', Name: 'Aman', Age: 23, Date of Birth: '08-Jan-1999', PlayingRole: 'Batsman', Email: 'batsman@gmail.com'}, return  $P_2$ )

Creating relationship among Cricketboard and team &

match (cb: CricketBoard {BoardID: 'B1D01'}, cb.ben [ItemID: 'CB01'; ])

Create (cb) - (v1)  $\rightarrow$  (b1) return cb, v1

match (cb: CricketBoard {BoardID: 'B1D01'}, cb.ben [ItemID: 'CB01'; ]) , (b1: Ben [ID: 'B1'])

Create (cb) - (v2)  $\rightarrow$  (b2) return cb, v2,

match (cb: CricketBoard {BoardID: 'B1D01'}, cb.ben [ItemID: 'CB01'])

Create (cb) - (v3)  $\rightarrow$  (b3) return cb, v3

Creating relationship among players and team

match ( $P_1$ : Player {PlayerID: '1'},  $P_2$ : Ben [ItemID: 'CB01'])

Create ( $P_2$ ) ( $P_2$ : Player)  $\rightarrow$  (b1) return  $P_2$ , b1

match ( $P_2$ : Player {PlayerID: '2'},  $b_1$ : Ben [ItemID: 'CB01'])

ICC: ICC01) Create ( $P_2$ ) ( $P_2$ : Player)  $\rightarrow$  (CSE) return  $P_2$ , CSE

EX NO.	9
PERFORMANCE (5)	✓
RESULT AND ANALYSIS (5)	✓
VIVA VOCE (5)	✓
RECORD (5)	✓
TOTAL	20
SIGN WITH DATE	X

Result:-

Thus, the CRUD Operations on graph space executing inserting, querying, finding, deleting operations successfully.