

13/10/25

Task: 11 CRUD operation in graph databases

Aim:

To perform CRUD operations such as creating, inserting, querying, finding and deleting in a Hospital graph database using Neo4j.

Creating nodes with properties:

```
CREATE (P: patient {pid: "HPT001", pname: "Ravi Kumar", Dept: "Cardiology"});
```

```
CREATE (P: patient {pid: "HPT002", pname: "Anil Kumar", Dept: "Neurology"});
```

```
CREATE (P: patient {pid: "HPT003", pname: "Sita Rani", Dept: "pediatrics"});
```

```
CREATE (d: doctor {did: "DOC101", Dname: "Dr. Sharma", Dept: "Cardiology"});
```

```
CREATE (d: doctor {did: "DOC102", Dname: "Dr. Menon", Dept: "Neurology"});
```

Displaying All Nodes:

```
MATCH (n) RETURN n;
```

```
MATCH (P: patient) RETURN P;
```

Creating Relationships Between patients and doctors

```
MATCH (P: patient), (d: doctor)
```

```
WHERE P.pname = 'Ravi Kumar' AND d.Dname = 'Dr. Sharma'
```

```
CREATE (P)-[:TREATED_BY]->(d)  
RETURN P, d;
```

```
MATCH (P: patient), (d: doctor)
```

```
WHERE P.pname = 'Anil Kumar' AND d.Dname = 'Dr. Menon'
```

```
CREATE (P)-[:TREATED_BY]->(d)  
RETURN P, d;
```

Deleting a Node:

MATCH (p: patient & p.name: 'Sita Rani') DELETE p;

PID: HPT001
Pname: Ravi Kumar
Dept: Cardiology

Treated_By

DID: DOC101
Dname: Dr. Sharma
Dept: Cardiology

PID: HPT002
Pname: Bil Kumar
Dept: Neurology

Treated_By

DID: DOC102
Dname: Dr. Menon
Dept: Neurology

PID: HPT001
Pname: Ravi Kumar

VELTECH	
EX No.	11
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	
TOTAL (20)	15
SIGN WITH DATE	13/01/24

Result:

CRUD operations (Create, insert, query, relationship creation, and delete) were successfully executed on the Hospital Graph Database using Neo4j.