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Lab-03

Creating a graph database in Neo4J

1. Creating a student node with its properties

```
CREATE (a:STUDENT {name:"Roni", id:12})
```

```
CREATE (a:STUDENT {name:"Raj", id:13})
```

```
CREATE (a:STUDENT {name:"Abhi", id:14})
```

```
CREATE (a:STUDENT {name:"Ajay", id:15})
```

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

Roni

Raj

Ajay

Abhi

2. Creating course nodes with its properties.

```
CREATE (a:COURSE {name:"DBMS", credits:3})
```

```
CREATE (a:COURSE {name:"OS", credits:4})
```

```
CREATE (a:COURSE {name:"DS", credits:4})
```

```
CREATE (a:COURSE {name:"BDA", credits:4})
```

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

DBMS

OS

Ajay

BDA

Abhi

DS

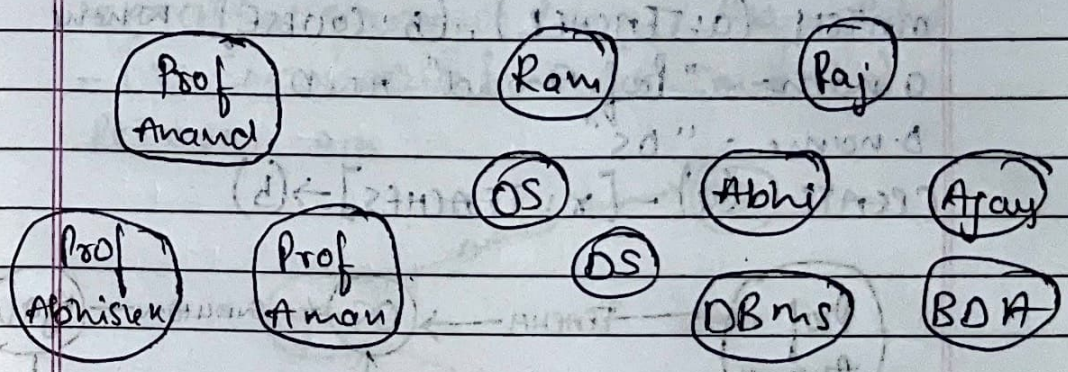
Roni

Raj

3. Creating Teacher nodes with its properties

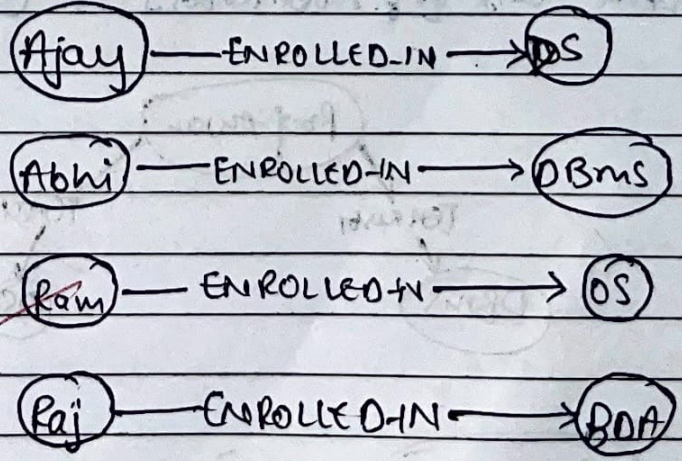
```
CREATE (a:TEACHER {name:"Prof. Anand"})
CREATE (a:TEACHER {name:"Prof. Anon"})
CREATE (a:TEACHER {name:"Prof. Abhishek"})
```

MATCH (n) RETURN n

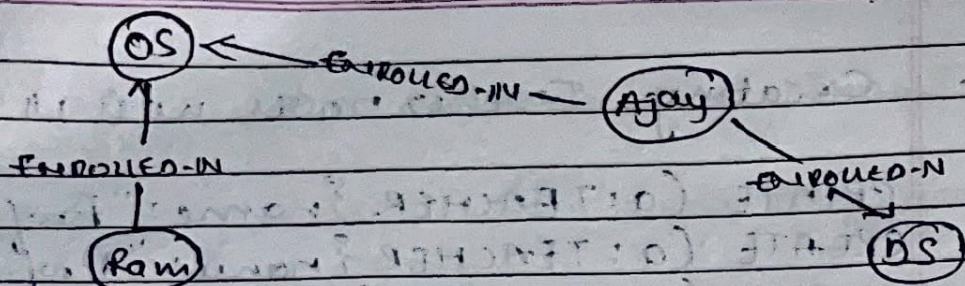


4. Creating Student & course relationship

```
MATCH (a:STUDENT), (b:COURSE) where
a.name = "Ajay" AND
b.name = "DS"
CREATE (a) - [r:ENROLLED-IN] -> (b)
RETURN a, b
```



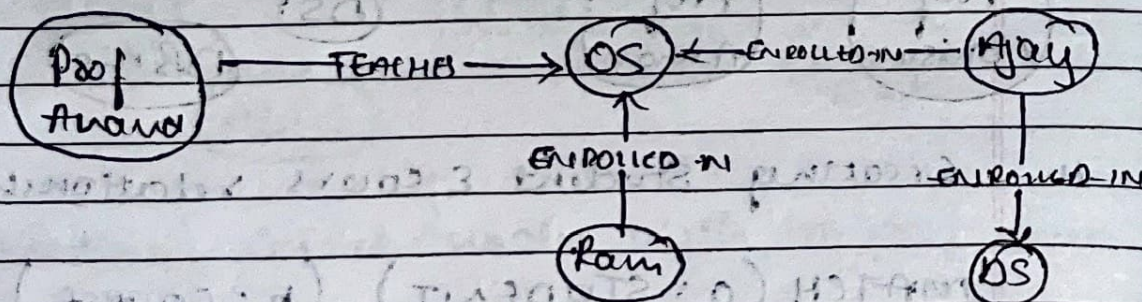
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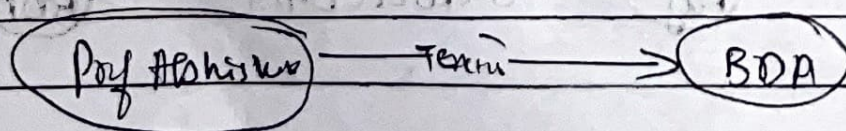
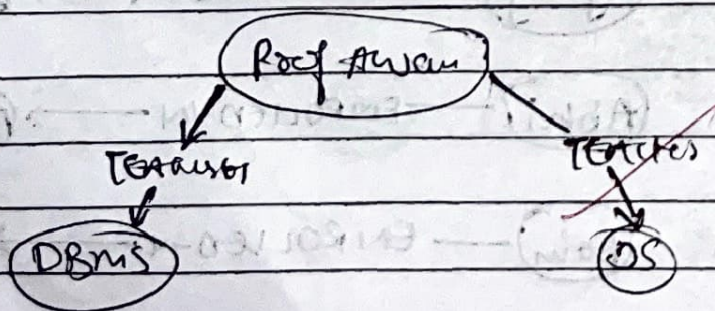
5 Creating relationship between TEACHER & COURSE

MATCH (a:TEACHER), (b:COURSE) where
 a.name = "Prof. Anand" AND
 b.name = "OS"

CREATE (a) - [x:TEACHES] -> (b)



MATCH (a:TEACHER), (b:COURSE) where
 a.name = "Prof. Anand" AND
 (b.name = "DBMS" OR b.name = "OS")
 CREATE (a) - [x:TEACHES] -> (b)



6. To change properties of a node:

```

MATCH (a:STUDENT {name:"Ajay"})
SET a.id = 21 RETURN a

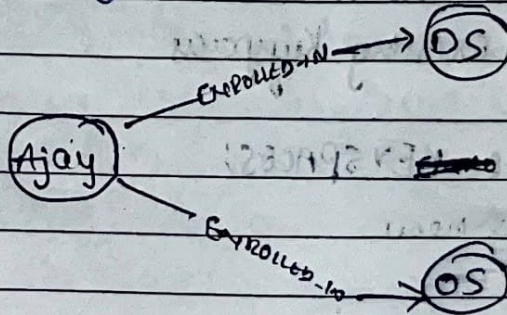
```

7. Checking course enrolled by student

```

MATCH (a:STUDENT {name:"Ajay"})
- [r:ENROLLED-IN] -> (c:COURSE)
RETURN a,b

```



8. To delete a node by deleting its relationship

```

MATCH (a:STUDENT {name:"Ajay"})
-[r]-(b) DELETE r

```

9. ~~MATCH (n) DETACH DELETE (n)~~