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## Optionally create relationship in Neo4J

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I'm trying to build a Cypher query which will connect an actor to the movie, or update existing relationship with new values of relationship property. I'm thinking of something like this:

```
MATCH (actor:Person{name:"Tom Hanks"})
MATCH (movie:Movie{title:"Cloud Atlas"})
OPTIONAL MATCH (actor)-[r:ACTED_IN]->(movie)
SET r.roles = ['Role 1', 'Role 2']
```

This works fine for the actors and movies which came from the example in Neo4j and are already connected, but not when I try to create new relationship, because `r` is null and cannot be updated.

So, how can I update `r.roles` if the relationship `r` exists or create a new relationship if it doesn't?

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asked Apr 6 at 20:31



Srdjan Marjanovic

38 • 4

### 1 Answer

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You want to use `MERGE`, which creates a pattern if it doesn't exist, otherwise it is retrieved:

```
MATCH (actor:Person{name:"Tom Hanks"})
MATCH (movie:Movie{title:"Cloud Atlas"})
MERGE (actor)-[r:ACTED_IN]->(movie)
SET r.roles = ['Role 1', 'Role 2']
```

You should also [check out](#) `ON CREATE SET` and `ON MATCH SET`, which will allow you to do different things depending on if the pattern was created or retrieved:

```
MATCH (actor:Person{name:"Tom Hanks"})
MATCH (movie:Movie{title:"Cloud Atlas"})
MERGE (actor)-[r:ACTED_IN]->(movie)
  ON MATCH SET r.roles = ['Role 1', 'Role 2']
  ON CREATE SET r.roles = ['Role 3', 'Role 4']
```

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answered Apr 6 at 20:39



Nicole White

3,059 • 4 • 15

Some slick stuff here! Didn't know we could do different actions in different cases! Thanks Nicole, works like a charm :) – [Srdjan Marjanovic](#) Apr 6 at 20:45

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asked 4 months ago

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