Tags

Users

Badges

Unanswered

Ask Ouestion

Ten. Million. Questions. Let's celebrate all we've done together.

Stack Overflow is a question and answer site for professional and enthusiast programmers. It's 100% free.

Take the 2-minute tour

# Creating/Setting multiple relationship properties, with conditional

asked 4 months ago

viewed 39 times

active 4 months ago



I'm attempting to set multiple relationship properties within a LOAD CSV operation, where one of the properties will ALWAYS be set and the other will only be set if the two nodes belong to a specific label. I can't seem to get it to allow me to chain multiple SET statements together, with a conditional between them.

Blog

Why Stack Overflow is a Good Workplace for Women

I'm trying to do something along the lines of:

```
LOAD CSV WITH HEADERS FROM "file:/smalltext.csv" AS line
MATCH (a:Person { username: line.sender })
MATCH (b:Person { username: line.recipient })
CREATE UNIQUE (a)-[r:MSGD ]->(b)
SET r.Msg = coalesce(r.Msg, []) + [line.Msg]
WITH a,b,r, WHERE a:Geotagged AND b:Geotagged,
SET r.Distance = (2 * 6371 * asin(sqrt(haversin(radians(a.statusLat - b.statusLat))
```

FYI, the Distance formula comes straight from Neo4j, so I presume it is correct not only mathematically, but syntactically as well.

#### http://neo4j.com/docs/stable/query-functions-mathematical.html#functions-haversin

The Distance property should be set IF and ONLY IF both nodes are labeled as "Geotagged". The reason is, the subtraction function (of all things) doesn't know how to subtract null from a number (or vice-versa) and if the user is not "Geotagged", the lat/lon values will be null.

I've tried putting the creation of the Msg property in the CREATE statement, but it wouldn't allow me to reference the relationship property from within the relationship property.

The "Geotagged" label is set when the data is imported (also in a LOAD CSV) and gets set only if each user has geolocation information.

I've also wondered if I should make the distance property a separate relationship? I'd rather keep

it together with the messages, but am open to thoughts on that question as well.

Thanks!

**EDIT 1** I've been able to set the lat/lon to 0 if the user is not geotagged in the initial node creation phase, however I would prefer not to manipulate data if I don't absolutely have to.

**EDIT 2** After having set all non-geotagged nodes' LAT and LON to 0 and rerunning the relationship import, Cypher is still telling me it can't do the subtraction with 0 (see below):

QueryExecutionKernelException: Don't know how to Subtract(a.statusLat,b.statusLat) `0` with `33.223`

Now I'm just confounded...I'd have thought it would not have had a problem with that, but this is **STILL** not a good solution because when calculating the distance between a geotagged and non-geotagged user, it will give actual (and erroneous) results that I won't be able to work with.

**EDIT 3** The answer below did indeed work, however the reason for my Exception above was because I was trying to subtract on Strings (duh), so simply running them through toFloat() at time of subtraction fixed it. I tried running toFloat() and storing the result in the DB, however that completely removed the field if it returned NULL, which is not the behavior I was going for.

If anyone has a way to run both SET's in the same LOAD CSV operation, I would greatly appreciate knowing how, because that will be far from ideal with my actual dataset.

### Related

- 1 "[null] is not a supported property value" in Neo4j csv import when using relationship properties
- Neo4j cypher query performance when ordering a large data set
- 2 Add Unique Nodes and relationship between them from Existing Setup in Neo4j
- 1 Neo4j Cypher Query to list paths of nodes with a single relation based on a startend condition
- 2 SET label based on data within LOAD CSV
- Neo4j Index created by constraint
- Set a transient property on a node neo4j
- Neo4j Cypher statement to build relationships took near half of day to complete with error "Self-suppression not permitted"
- How can I optimise a Neo4j MERGE query on a node with many relationships?

share improve this question

edited Apr 7 at 15:58

add a comment



oldest

votes

active



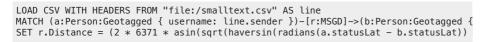
1 Answer

I hope this is not a stupid suggestion but...





...would it not be simpler to split the query out into multiple parts? There is nothing to say you cannot import and process the same CSV file in multiple ways, using multiple Cypher statements. From your question I am assuming that the creation of the relationship (a)-[r:MSGD]->(b) and setting of the property r.msg is working just fine. The issue comes when trying to conditionally set r.distance. So run another LOAD CSV operation, like this:



This should match only those nodes with both :Person and :Geotagged labels that are linked by the MSGD relationship and therefore satisfy your condition of setting the r.distance property only when both Person nodes have been labelled with Geotagged.

The complete code would be something like:

```
LOAD CSV WITH HEADERS FROM "file:/smalltext.csv" AS line
MATCH (a:Person { username: line.sender })
MATCH (b:Person { username: line.recipient })
CREATE UNIQUE (a)-[r:MSGD]->(b)
SET r.Msg = coalesce(r.Msg, []) + [line.Msg]

LOAD CSV WITH HEADERS FROM "file:/smalltext.csv" AS line
MATCH (a:Person:Geotagged { username: line.sender })-[r:MSGD]->(b:Person:Geotagged {
SET r.Distance = (2 * 6371 * asin(sqrt(haversin(radians(a.statusLat - b.statusLat))
```

Hope this is helpful.

share improve this answer

edited Apr 7 at 15:06

answered Apr 7 at 14:27 ceej 466 • 2 • 10

No, not a stupid suggestion at all....I hadn't even considered reading in the file a second time. It will make things much more difficult with the actual data (3 million nodes and several million relationships), but....I still think there is a way to do it all in one statement, but this did indeed work. More details in my OP. – Brooks Apr 7 at 15:55

add a comment

# Your Answer

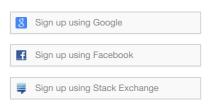


 Neo4j Load from CSV "How to create node or relationship type dynamically as retrieved from csv?"

#### Hot Network Questions

- Has any Star Trek character appeared in all three division uniform colors?
- Could a communication satellite that fails to reach GEO be repurposed?
- Noun form of "extant"?
- For loop formatting
- Justification that 'good exposition' is uniquely defined
- Do companies only pay dividends if they are in profit?
- Can you open source firmware to closed hardware?
- Would allowing shorter passwords sometimes be more secure?
- Is "user-select: none" bad UX?
- Proving that all integers are even or
- How to use Piano pedals without using the foot?
- Why do we still use keys to start cars? why not passwords?
- As a professional photographer, how can one handle a wedding photographer being rude or demanding in a way that will compromise overall image quality?
- Which Star Trek character appeared on screen with the most different ranks?
- Could an autotrophic civilisation develop, or will evolving life forms always eat each other?
- Should you always minimize cognitive load
- Important formulas in Combinatorics
- Why did Holly decide to simply wait out the radioactivity?
- ↑ Two definitions of Green's function
- Lunch with the CEO
- Is it modest to compliment a woman on her modesty?
- Sign that word!
- How do I know when my sauce is reduced enough?
- Draw horizontal lines like open and close brackets

## Sign up or log in



## Post as a guest

Name	
Email	
required, but never shown	

Post Your Answer

By posting your answer, you agree to the privacy policy and terms of service.

Not the answer you're looking for? Browse other questions tagged neo4j cypher or ask your own question.

a question feed

TECHNOLOGY			LIFE / ARTS	CULTURE / RECREATION	SCIENCE	OTHER
Stack Overflow	Programmers	Database Administrators	Photography	English Language &	Mathematics	Stack Apps
Server Fault	Unix & Linux		Science Fiction & Fantasy	Usage Fiction & Skeptics	Cross Validated (stats)	Meta Stack Exchange
Super User	Ask Different (Apple)	Drupal Answers			Theoretical Computer	Area 51
Web Applications	WordPress	SharePoint	Graphic Design	Mi Yodeya (Judaism)	Science	Stack Overflow Careers
Ask Ubuntu	Development	User Experience	Movies & TV	Travel	Physics	
Webmasters	Geographic Information Systems	Mathematica	Seasoned Advice (cooking)	Christianity	MathOverflow	
		Salesforce		Arqade (gaming)	Chemistry	
Game Development	Electrical Engineering	ExpressionEngine®	Home Improvement	Bicycles	Biology	
TeX - LaTeX	Android Enthusiasts	Answers more (13)	Personal Finance & Money	Role-playing Games	more (5)	
	Information Security			more (21)	(-)	
			Academia			
			more (9)			