stackoverfloooooooow

Questions | Tags | Users | Badges | Unanswered | Ask Question

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

Neo4j - cypher syntax to find relationships between nodes from two separate collections

asked   4 months ago

viewed   50 times

active   4 months ago

▲

1

▼

★

I have developed the following query to find all nodes that meet a certain query criteria. Specifically, all the disease codes that satisfy certain parameters. I have used UNION to accomplish this in the code:

```
//Find all diagnosis codes
MATCH p = (a:ObjectConcept{sctid:233604007}) <-[:ISA*]- (b:ObjectConcept),
        q = (c:ObjectConcept{sctid:58800005})<-[:ISA*]-(d:ObjectConcept)
WHERE NOT (b)-->()--(c) AND NOT (b)-->()-->(d)
RETURN distinct b
UNION
MATCH p = (a:ObjectConcept{sctid:233604007}) <-[:ISA*]- (b:ObjectConcept),
        t = (e:ObjectConcept{sctid:65119002})<-[:ISA*]-(f:ObjectConcept)
WHERE NOT (b)-->()-->(e) AND NOT (b)-->()-->(f)
RETURN distinct b
```

I would like to care the result from this query. That is the set (distinct b) and find all patients with any of these diseases.

```
Pseudo-code: Match s = (nodes in distinct b) <-[:HAS_DX]- (z:Patient)
RETURN  distinct z
```

However, I do not know the Cypher syntax to carry the set of distinct nodes b into this subsequent query statement. I am using Neo4j v 2.1.7.

Thanks

neo4j   cypher

share improve this question

asked Mar 30 at 21:54
Scott Campbell
16 ● 1

add a comment

2 Answers

active   oldest   votes

▲

1

▼

Does this query work for you?

```
MATCH p = (a:ObjectConcept{sctid:233604007})<-[:ISA*]-(b:ObjectConcept)<-[:HAS_DX]-(
        q = (c:ObjectConcept)<-[:ISA*]-(d:ObjectConcept)
WHERE (c.sctid = 58800005 OR c.sctid = 65119002) AND NOT (b)-->()-->(c) AND NOT (b)-
RETURN DISTINCT z;
```

share improve this answer

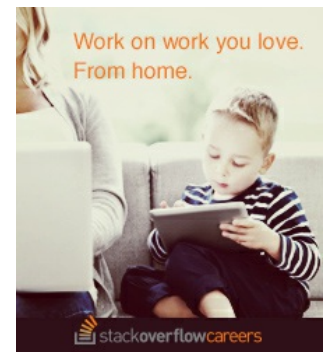answered Mar 30 at 23:03
cybersam
9,941 ● 2 ● 7 ● 21

The logic of the query would work, but I see two issues. First, the search for paths q as written is traversing the entire model without the restrictions on c, and therefore, performing unnecessary calculations. Second, the path search p, while an intriguing design, will need to be somehow "reigned in" to limit calculations of nodes/edges not germane to the search. I will have to play with these concepts as I do see their merit. Thanks. – Scott Campbell Mar 31 at 13:50 ✎

add a comment

Related

24 Cypher - Return node if relationship is not present

0 Neo4j Cypher Get Relationship Direction

2 Neo4j Cypher: find first matching relationship in a linked list?

1 Match several node property values in Cypher / Neo4J

5 Finding nodes that do not have specific relationship (Cypher/neo4j)

-2 Neo4j Cypher Count displaying nodes, not relationships pairs Or Union Sets

▲

0

▼

The following query was successful. It required matching all aspects of the desired output into each subquery such that the column headers were all the same. Less than 1 sec added to query time.

```
MATCH p = (a:ObjectConcept{sctid:233604007}) <-[:ISA*]- (b:ObjectConcept),
      q = (c:ObjectConcept{sctid:58800005})<-[:ISA*]-(d:ObjectConcept)
WHERE NOT (b)-->()--(c) AND NOT (b)-->()-->(d)
with distinct b
MATCH (t:Patient)-[:HAS_DX]-> (b)
RETURN distinct t.patient_id,b.FSN
UNION
MATCH p = (a:ObjectConcept{sctid:233604007}) <-[:ISA*]- (b:ObjectConcept),
      t = (e:ObjectConcept{sctid:65119002})<-[:ISA*]-(f:ObjectConcept)
WHERE NOT (b)-->()-->(e) AND NOT (b)-->()-->(f)
with distinct b
MATCH (t:Patient)-[:HAS_DX]-> (b)
RETURN distinct t.patient_id,b.FSN;
```

share improve this answer

answered Apr 2 at 19:27

Scott Campbell
16 ● 1

add a comment

Your Answer

| **B** | *I* | 🔗 | 66 | {} | 🖼 | ≣ | ≣ | ≣ | ≣ | ↶ | ↷ |

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.

🔶 question feed

TECHNOLOGY

Stack Overflow

Server Fault

Super User

Web Applications

Ask Ubuntu

Webmasters

Game Development

TeX - LaTeX

Programmers

Unix & Linux

Ask Different (Apple)

WordPress Development

Geographic Information Systems

Electrical Engineering

Android Enthusiasts

Information Security

Database Administrators

Drupal Answers

SharePoint

User Experience

Mathematica

Salesforce

ExpressionEngine® Answers

more (13)

LIFE / ARTS

Photography

Science Fiction & Fantasy

Graphic Design

Movies & TV

Seasoned Advice (cooking)

Home Improvement

Personal Finance & Money

Academia

more (9)

RECREATION

English Language & Usage

Skeptics

Mi Yodeya (Judaism)

Travel

Christianity

Arqade (gaming)

Bicycles

Role-playing Games

more (21)

SCIENCE

Mathematics

Cross Validated (stats)

Theoretical Computer Science

Physics

MathOverflow

Chemistry

Biology

more (5)

OTHER

Stack Apps

Meta Stack Exchange

Area 51

Stack Overflow Careers