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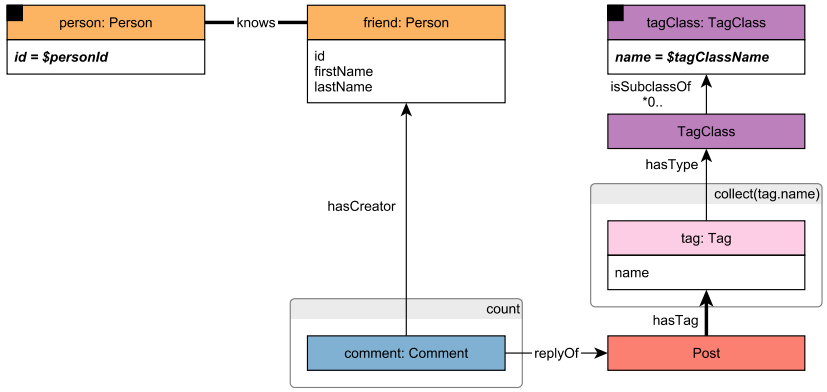
query	Interactive / complex / 12
title	Expert search
pattern	
description	Given a start Person with ID `$personId`, find the Comments that this Person's friends made in reply to Posts, considering only those Comments that are direct (single-hop) replies to Posts, not the transitive (multi-hop) ones. Only consider Posts with a Tag in a given TagClass with name `$tagClassName` or in a descendent of that TagClass. Count the number of these reply Comments, and collect the Tags that were attached to the Posts they replied to, but only collect Tags with the given TagClass or with a descendant of that TagClass. Return Persons with at least one reply, the reply count, and the collection of Tags.

params

1	`$personId`	ID
2	`$tagClassName`	Long String

result

1	`friend.id`	ID	R	
2	`friend.firstName`	String	R	
3	`friend.lastName`	String	R	
4	`tagNames`	{Long String}	A	
5	`replyCount`	32-bit Integer	A	

sort

1	`replyCount`	↓	
2	`friend.id`	↑	

limit	20
CPs	3.3, 7.2, 7.3, 8.2
relevance	This query starts at a Person, moves to its friends, and the to their Comments and their root Posts. Then, it gets the Tag of each Post and checks whether it (directly or transitively) belongs to the specified TagClass. This can be thought of a bidirectional search between the Person and the TagClass. The difficulty of this query is determining the optimal direction of this traversal.