

Interactive / complex / 10

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title	Friend recommendation			
pattern				
desc.	<p>Given a start Person, find that Person's friends of friends (excluding start Person, and immediate friends), who were born on or after the 21st of a given month (in any year) and before the 22nd of the following month. Calculate the similarity between each of these Persons and start Person, where similarity for any Person is defined as follows:</p> <ul style="list-style-type: none"> • common = number of Posts created by that Person, such that the Post has a Tag that start Person is Interested in • uncommon = number of Posts created by that Person, such that the Post has no Tag that start Person is Interested in • similarity = common - uncommon 			
params	1	Person.id	ID	
	2	month	32-bit Integer	Between 1-12
result	1	Person.id	ID	R
	2	Person.firstName	String	R
	3	Person.lastName	String	R
	4	similarity	32-bit Integer	C
	5	Person.gender	String	R
	6	Person-isLocatedIn->Place.name	String	R
sort	1	similarity	↓	
	2	Person.id	↑	
limit	10			
CPs	2.3, 3.3, 4.1, 4.2, 5.1, 5.2, 6.1, 7.1			
relevance	<p>This query looks for paths of length two, starting from a Person and ending at the friends of their friends. It does widely scattered graph traversal, and one expects no locality of in friends of friends, as these have been acquired over a long time and have widely scattered identifiers. The join order is simple but one must see that the anti-join for "not in my friends" is better with hash. Also the last pattern in the scalar sub-queries joining or anti-joining the tags of the candidate's posts to interests of self should be by hash.</p>			