

BI / read / 8

BI 1
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query	BI / read / 8																	
title	Central person for a tag																	
pattern																		
description	<p>Given a \$tag, find all Persons that are interested in the \$tag and/or have written a Message (Post or Comment) with a creationDate after a given \$startDate and that has a given \$tag. For each Person, compute the score as the sum of the following two aspects:</p> <ul style="list-style-type: none"> • 100, if the Person has this \$tag as their interest, or 0 otherwise • number of Messages by this Person with the given \$tag <p>Also, for each Person, compute the sum of the score of the Person's friends (friendsScore).</p>																	
params	<table border="1"> <tr> <td>1</td> <td>\$tag</td> <td>Long String</td> <td>Tags with a similar amount of Messages are selected</td> </tr> <tr> <td>2</td> <td>\$startDate</td> <td>Date</td> <td>(a): A range during which a flashmob event happened (it should yield at least a 5× difference) (b): A regular range (does not include a flashmob event)</td> </tr> <tr> <td>3</td> <td>\$endDate</td> <td>Date</td> <td></td> </tr> </table>	1	\$tag	Long String	Tags with a similar amount of Messages are selected	2	\$startDate	Date	(a): A range during which a flashmob event happened (it should yield at least a 5× difference) (b): A regular range (does not include a flashmob event)	3	\$endDate	Date						
1	\$tag	Long String	Tags with a similar amount of Messages are selected															
2	\$startDate	Date	(a): A range during which a flashmob event happened (it should yield at least a 5× difference) (b): A regular range (does not include a flashmob event)															
3	\$endDate	Date																
result	<table border="1"> <tr> <td>1</td> <td>person.id</td> <td>ID</td> <td>R</td> <td></td> </tr> <tr> <td>2</td> <td>score</td> <td>32-bit Integer</td> <td>A</td> <td></td> </tr> <tr> <td>3</td> <td>friendsScore</td> <td>32-bit Integer</td> <td>A</td> <td>The sum of the score of the person's friends</td> </tr> </table>	1	person.id	ID	R		2	score	32-bit Integer	A		3	friendsScore	32-bit Integer	A	The sum of the score of the person's friends		
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2	score	32-bit Integer	A															
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sort	<table border="1"> <tr> <td>1</td> <td>score + friendsScore</td> <td>↓</td> <td></td> </tr> <tr> <td>2</td> <td>person.id</td> <td>↑</td> <td></td> </tr> </table>	1	score + friendsScore	↓		2	person.id	↑										
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2	person.id	↑																
limit	100																	
CPs	1.2, 2.1, 2.3, 3.2, 5.3, 8.2, 8.4, 8.5																	
relevance	<p>Similarly to BI 16, there are two major ways to compute this query: (1) creating an induced subgraph of the interested Persons and their friends and performing the scoring on this graph or (2) performing the scoring without creating an induced subgraph and scoring the friends of a Person on-the-fly. The first approach is more efficient as it avoids redundant computations, however, specifying it needs support for composable graph queries.</p>																	