

## BI / read / 10

query	BI / read / 10				
title	Experts in social circle				
pattern	<pre>graph TD     Country[Country] -- isPartOf --&gt; City[City]     City -- isLocatedIn --&gt; expertCandidatePerson[expertCandidatePerson: Person]     expertCandidatePerson -- knows* --&gt; startPerson[startPerson: Person]     startPerson -- "\$minPathDistance.. \$maxPathDistance" --&gt; expertCandidatePerson     expertCandidatePerson -- hasCreator --&gt; Message[Message]     Message -- hasTag --&gt; tag1[tag: Tag]     Message -- hasTag --&gt; tag2[Tag]     tag1 -- hasType --&gt; TagClass[TagClass]     tag2 -- hasType --&gt; TagClass     subgraph CountBox [count for each (tag, person)]         Message         tag1         tag2     end     style Country fill:#ffff00     style City fill:#00cccc     style expertCandidatePerson fill:#ffcc00     style startPerson fill:#ffcc00     style Message fill:#cccccc     style tag1 fill:#ffccff     style tag2 fill:#ffccff     style TagClass fill:#cc00cc</pre>				
desc.	<p>Given a Person (startPerson), find all other Persons (expertCandidatePerson) that live in a given Country and are connected to given Person by a <i>shortest path</i> with length in range [minPathDistance, maxPathDistance] through the knows relation.</p> <p>For each of these expertCandidatePerson nodes, retrieve all of their Messages that contain at least one Tag belonging to a given TagClass (direct relation not transitive). For each Message, retrieve all of its Tags.</p> <p>Group the results by Persons and Tags, then count the Messages by a certain Person having a certain Tag.</p>				
params	1	personId	ID	The ID of the startPerson. Persons with a similar degree of knows edges are selected	
	2	country	String	Countries with a similar number of Persons are selected	
	3	tagClass	Long String	TagClasses with a similar degree of hasType edges are selected	
	4	minPathDistance	32-bit Integer	1 or 2	
	5	maxPathDistance	32-bit Integer	2 or 3	
result	1	expertCandidatePerson.id	ID	R	
	2	tag.name	Long String	R	
	3	messageCount	32-bit Integer	A	Number of Messages created by that Person containing that Tag
sort	1	messageCount	↓		
	2	tag.name	↑		
	3	expertCandidatePerson.id	↑		
limit	100				
CPs	1.2, 1.3, 2.3, 2.4, 3.3, 5.3, 7.1, 7.2, 7.3, 8.1, 8.6				