

## BI / read / 10

BI 1	query	BI / read / 10			
BI 2	title	Experts in social circle			
BI 3	pattern	<pre> graph TD     Country[Country name = \$country] -- isPartOf --&gt; City[City]     City -- isLocatedIn --&gt; expertCandidatePerson[expertCandidatePerson: Person id]     startPerson[startPerson: Person id = \$personId] -- knows* --&gt; expertCandidatePerson     expertCandidatePerson -- id --&gt; Message[Message count for each (tag, person)]     expertCandidatePerson -- hasCreator --&gt; Message     TagClass[TagClass name = \$tagClass] -- hasType --&gt; Tag[Tag]     Tag -- hasTag --&gt; Message     Tag -- hasTag --&gt; tag[Tag name]     </pre>			
BI 4					
BI 5					
BI 6					
BI 7					
BI 8					
BI 9					
BI 10					
BI 11					
BI 12					
BI 13	description	<p>Given a Person <code>startPerson</code> with ID <code>\$personID</code>, find all other Persons (<code>expertCandidatePerson</code>) that live in a given <code>\$country</code> and are connected to the <code>startPerson</code> on a <i>shortest path</i> with length in range <math>[\\$minPathDistance, \\$maxPathDistance]</math> through the <code>knows</code> relation.</p> <p>For each of these <code>expertCandidatePerson</code> nodes, retrieve all of their Messages that contain at least one Tag belonging to a given <code>\$tagClass</code> (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>			
BI 14					
BI 15					
BI 16	params	1	\$personId	ID	(a) Persons with an average degree of <code>knows</code> edges are selected (b) Persons who have only one friend and that Person has two friends in total (including the original Person)
BI 17		2	\$country	String	Select mid-sized Countries
BI 18		3	\$tagClass	Long String	TagClasses with a similar degree of <code>hasType</code> edges are selected
BI 19		4	\$minPathDistance	32-bit Integer	3
BI 20		5	\$maxPathDistance	32-bit Integer	4
	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, 2.6, 3.3, 5.3, 7.1, 7.2, 7.3, 8.1, 8.6				