

## Interactive / complex / 6

IC 1	query	Interactive / complex / 6			
IC 2	title	Tag co-occurrence			
IC 3	pattern	 <pre> graph TD     person[person: Person] -- knows*1..2 --&gt; otherPerson[otherPerson: Person]     tag[tag: Tag] -- hasTag --&gt; Post[Post]     otherTag[otherTag: Tag] -- hasTag --&gt; Post     Post -- hasCreator --&gt; otherPerson     subgraph count         Post     end             </pre> <p>The diagram illustrates the query pattern. It starts with a <b>person: Person</b> entity (orange box) with a variable <code>id = \$personId</code>. This person is connected via a <code>knows*1..2</code> relationship to an <b>otherPerson: Person</b> entity (orange box). The <b>otherPerson</b> is connected via a <code>hasCreator</code> relationship to a <b>Post</b> entity (red box). The <b>Post</b> entity is also connected via <code>hasTag</code> relationships to two <b>Tag</b> entities: <b>tag: Tag</b> (pink box) and <b>otherTag: Tag</b> (pink box). The <b>tag</b> entity has a variable <code>name = \$tagName</code>. The <b>otherTag</b> entity has a variable <code>name ≠ \$tagName</code>. A <code>count</code> operation is applied to the <b>Post</b> entity, which is highlighted in a grey box.</p>			
IC 6	desc.	Given a start Person and some Tag, find the other Tags that occur together with this Tag on Posts that were created by start Person's friends and friends of friends (excluding start Person). Return top 10 Tags, and the count of Posts that were created by these Persons, which contain both this Tag and the given Tag.			
IC 14	params	1	personId	ID	
		2	tagName	Long String	
	result	1	otherTag.name	Long String	R
		2	postCount	32-bit Integer	A
		Number of Posts that were created by friends and friends of friends, which have the Tag otherTag			
	sort	1	postCount	↓	
		2	otherTag.name	↑	
	limit	10			
	CPs	5.1, 8.2			
	relevance	This query looks for paths of lengths three or four, starting from a given Person, moving to friends or friends of friends, then to Posts and finally ending at a given Tag.			