

## Interactive / complex / 4

IC 1	query	Interactive / complex / 4			
IC 2	title	New topics			
IC 3	pattern	<pre> graph LR     P1[person: Person id = \$personId] -- knows --&gt; P2[friend: Person]     P2 -- "«opt» hasCreator" --&gt; P3[Post postCount = count]     P2 -- hasTag --&gt; T[tag: Tag]     T -- "«neg» hasTag" --&gt; P4[Post creationDate &lt; \$startDate]     P4 -- hasCreator --&gt; P1 </pre>			
IC 4	desc.	Given a start Person (personId), find Tags that are attached to Posts that were created by that Person's friends. Only include Tags that were attached to friends' Posts created within a given time interval, and that were never attached to friends' Posts created before this interval.			
IC 5	params	1	personId	ID	
IC 6		2	startDate	Date	
IC 7		3	durationDays	32-bit Integer	Duration of requested period, in days. The interval [startDate, startDate + durationDays) is closed-open
IC 8	result	1	tag.name	Long String	R
IC 9		2	postCount	32-bit Integer	A
IC 10		Number of Posts made within the given time interval that have tag			
IC 11	sort	1	postCount	↓	
IC 12		2	tag.name	↑	
IC 13	limit	10			
IC 14	CPs	2.3, 8.2, 8.5			
	relevance	This query looks for paths of length two, starting from a given Person, moving to Posts and then to Tags. It tests the ability of the query optimizer to properly select the usage of hash joins or index based joins, depending on the cardinality of the intermediate results. These cardinalities are clearly affected by the input Person, the number of friends, the variety of Tags, the time interval and the number of Posts.			