

Interactive / complex / 4

IC 1	query	Interactive / complex / 4			
IC 2	title	New topics			
IC 3	pattern	<p>The diagram illustrates the query pattern. It features several entities: 'Person' (orange), 'person: Person' (orange with a black square), 'friend: Person' (orange), 'Post' (red), and 'tag: Tag' (pink). Relationships include 'knows' between 'Person' and 'person: Person', 'knows' between 'person: Person' and 'friend: Person', 'hasCreator' from 'Post' to 'Person', 'hasCreator' from 'friend: Person' to 'Post' (with an '«opt»' label), 'hasTag' from 'Post' to 'tag: Tag', and 'hasTag' from 'tag: Tag' to 'Post'. A red arrow labeled '«neg» hasTag' points from 'Post' to 'tag: Tag'. A 'Post' entity is shown with a filter: '\$startDate ≤ creationDate < \$startDate + \$durationDays'. Another 'Post' entity is shown with a filter: 'postCount = count'.</p>			
IC 4					
IC 5					
IC 6					
IC 7					
IC 8					
IC 9					
IC 10					
IC 11					
IC 12					
IC 13					
IC 14v1	description	<p>Given a start Person with ID \$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 [\$startDate, \$startDate + \$durationDays) (closed-open) and that were never attached to friends' Posts created before this interval.</p>			
IC 14v2	params	1	\$personId	ID	
		2	\$startDate	Date	
		3	\$durationDays	32-bit Integer	Duration of requested period, in days. The interval [\$startDate, \$startDate + \$durationDays) is closed-open
	result	1	tag.name	Long String	R
		2	postCount	32-bit Integer	A
	sort	1	postCount	↓	
		2	tag.name	↑	
	limit	10			
	CPs	2.3, 8.2, 8.5			
	relevance	<p>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.</p>			