

## Interactive / complex / 12

IC 1  
IC 2  
IC 3  
IC 4  
IC 5  
IC 6  
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IC 14

query	Interactive / complex / 12																													
title	Expert search																													
pattern																														
desc.	Given a start Person, find the Comments that this Person’s friends made in reply to Posts, considering only those Comments that are direct (single-hop) replies to Posts, not the transitive (multi-hop) ones. Only consider Posts with a Tag in a given TagClass or in a descendant of that TagClass. Count the number of these reply Comments, and collect the Tags that were attached to the Posts they replied to, but only collect Tags with the given TagClass or with a descendant of that TagClass. Return Persons with at least one reply, the reply count, and the collection of Tags.																													
params	<table><tr><td>1</td><td>Person.id</td><td>ID</td><td>personId</td></tr><tr><td>2</td><td>TagClass.name</td><td>String</td><td>tagClassName</td></tr></table>					1	Person.id	ID	personId	2	TagClass.name	String	tagClassName																	
1	Person.id	ID	personId																											
2	TagClass.name	String	tagClassName																											
result	<table><tr><td>1</td><td>Person.id</td><td>ID</td><td>R</td><td>personId</td></tr><tr><td>2</td><td>Person.firstName</td><td>String</td><td>R</td><td>personFirstName</td></tr><tr><td>3</td><td>Person.lastName</td><td>String</td><td>R</td><td>personLastName</td></tr><tr><td>4</td><td>{Tag.name}</td><td>{String}</td><td>R</td><td>tagNames</td></tr><tr><td>5</td><td>replyCount</td><td>32-bit Integer</td><td>A</td><td>replyCount – Number of reply Comments</td></tr></table>					1	Person.id	ID	R	personId	2	Person.firstName	String	R	personFirstName	3	Person.lastName	String	R	personLastName	4	{Tag.name}	{String}	R	tagNames	5	replyCount	32-bit Integer	A	replyCount – Number of reply Comments
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sort	<table><tr><td>1</td><td>count</td><td>↓</td><td></td></tr><tr><td>2</td><td>Person.id</td><td>↑</td><td></td></tr></table>					1	count	↓		2	Person.id	↑																		
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2	Person.id	↑																												
limit	20																													
CPs	3.3, 7.2, 7.3, 8.2																													
relevance	This query looks for paths of length three, starting at a <b>Person</b> , moving to its friends, the to their <b>Comments</b> and ending at the <b>Post</b> the <b>Comments</b> are replying. The chain from original post to the reply is transitive. The traversal may be initiated at either end, the system may note that this is a tree, hence leaf to root is always best. Additionally, a hash table can be built from either end, e.g. from the friends of self, from the tags in the category, from the or other.																													