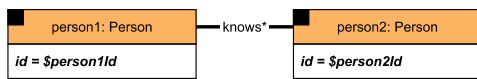
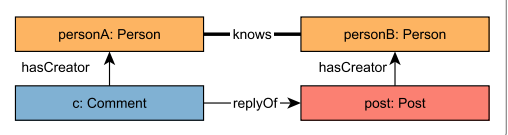
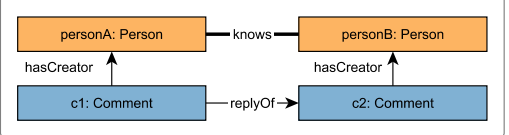
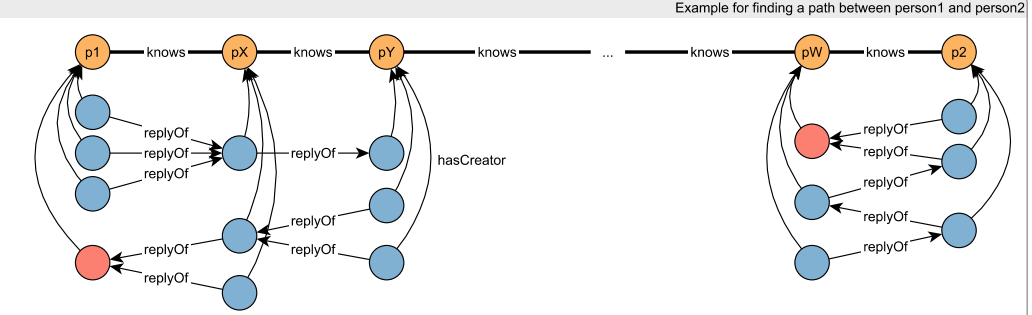


Interactive / complex / 14v1

- IC 1
- IC 2
- IC 3
- IC 4
- IC 5
- IC 6
- IC 7
- IC 8
- IC 9
- IC 10
- IC 11
- IC 12
- IC 13
- IC 14v1
- IC 14v2

query	Interactive / complex / 14v1				
title	Trusted connection paths (v1)				
pattern	<p>Enumerate all unweighted shortest paths on knows edges from person1 to person2. For each edge on the path, calculate a weight based on interactions between the pair of Persons of the edge as a sum of cases #1 and #2 for the Persons (both ways), and the sum of these weights determine the total weight of each path.</p>  <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid gray; padding: 5px;"> <p>Case 1: Replies on Posts, weight += 1.0 × count(c)</p>  </div> <div style="border: 1px solid gray; padding: 5px;"> <p>Case 2: Replies on Comments, weight += 0.5 × count(c1)</p>  </div> </div> <p>Example for finding a path between person1 and person2</p> 				
description	<p><i>This query is used in SNB Interactive v1.</i></p> <p>Given two Persons with IDs \$person1Id and \$person2Id, find all (unweighted) shortest paths between these two Persons, in the subgraph induced by the knows relationship.</p> <p>Then, for each path calculate a weight. The nodes in the path are Persons, and the weight of a path is the sum of weights between every pair of consecutive Person nodes in the path.</p> <p>The weight for a pair of Persons is calculated based on their interactions:</p> <ul style="list-style-type: none"> • Every direct reply (by one of the Persons) to a Post (by the other Person) is 1.0. • Every direct reply (by one of the Persons) to a Comment (by the other Person) is 0.5. <p>Note that interactions are counted both ways (e.g. if Alice writes 2 Post replies and 1 Comment reply to Bob, while Bob writes 3 Post replies and 4 Comment replies to Alice, their interaction score is $2 \times 1.0 + 1 \times 0.5 + 3 \times 1.0 + 4 \times 0.5 = 7.5$).</p> <p>Return all the paths with shortest length and their weights. Do not return any rows if there is no path between the two Persons.</p>				
params	1	\$person1Id	ID		
	2	\$person2Id	ID		
result	1	personIdsInPath	[ID]	C	Identifiers representing an ordered sequence of the Persons in the path
	2	pathWeight	64-bit Float	C	
sort	1	pathWeight	↓	The order of paths with the same weight is unspecified	
CPs	3.3, 5.3, 7.2, 7.3, 7.5, 7.7, 8.1, 8.2, 8.3, 8.6				
relevance	This query looks for a variable length path, starting at a given Person and finishing at an another given Person. This is a more complex query as it not only requires computing the path length, but returning it and computing a weight. To compute this weight one must look for smaller sub-queries with paths of length three, formed by the two Persons at each step, a Post and a Comment.				