

## Interactive / complex / 1

query	Interactive / complex / 1																																																																					
title	Transitive friends with certain name																																																																					
pattern																																																																						
desc.	Given a start Person, find Persons with a given first name ( <i>firstName</i> ) that the start Person is connected to (excluding start Person) by at most 3 steps via the knows relationships. Return Persons, including the distance (1..3), summaries of the Persons workplaces and places of study.																																																																					
params	<table><tr><td>1</td><td>personId</td><td>ID</td><td></td></tr><tr><td>2</td><td>firstName</td><td>String</td><td></td></tr></table>				1	personId	ID		2	firstName	String																																																											
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CPs	2.1, 5.3, 8.2																																																																					
relevance	This query is a representative of a simple navigational query. It looks for paths of length 1..3 through the knows relation, starting from a given Person and ending at a Person with a given first name. It is interesting for several aspects. (1) It requires for a complex aggregation for returning the concatenation of universities, companies, languages and email information of the Person. (2) It tests the ability of the optimizer to move the evaluation of sub-queries functionally dependant on the Person, after the evaluation of the top-k. (3) Its performance is highly sensitive to properly estimating the cardinalities in each transitive path, and paying attention not to explore already visited Persons.																																																																					