

Interactive / complex / 11

IC 1

IC 2

IC 3

IC 4

IC 5

IC 6

IC 7

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IC 9

IC 10

IC 11

IC 12

IC 13

IC 14

query	Interactive / complex / 11				
title	Job referral				
pattern	<div><div><div>Person</div><div><i>id = \$id</i></div></div><div><div>person: Person</div><div>id firstName lastName</div></div><div><div>Organisation</div><div>name</div></div><div><div>Country</div><div><i>name = \$name</i></div></div><div><div>knows*1..2</div></div><div><div>workAt</div><div><i>year(worksFrom) < \$year</i></div></div><div><div>isLocatedIn</div></div><div><div></div><div></div></div></div>				
desc.	Given a start Person, find that Person’s friends and friends of friends (excluding start Person) who started working in some Company in a given Country, before a given date (year).				
params	<div><div>1</div><div>Person.id</div><div>ID</div><div>personId</div></div> <div><div>2</div><div>Country.name</div><div>String</div><div>countryName</div></div> <div><div>3</div><div>year</div><div>32-bit Integer</div><div>workFromYear</div></div>				
result	<div><div>1</div><div>Person.id</div><div>ID</div><div>R</div><div>personId</div></div> <div><div>2</div><div>Person.firstName</div><div>String</div><div>R</div><div>personFirstName</div></div> <div><div>3</div><div>Person.lastName</div><div>String</div><div>R</div><div>personLastName</div></div> <div><div>4</div><div>Person-workAt->Organisation.name</div><div>String</div><div>R</div><div>organizationName</div></div> <div><div>5</div><div>Person-workAt->.worksFrom</div><div>32-bit Integer</div><div>R</div><div>organizationWorkFromYear</div></div>				
sort	<div><div>1</div><div>Person-workAt->.worksFrom</div><div>↑</div><div></div></div> <div><div>2</div><div>Person.id</div><div>↑</div><div></div></div> <div><div>3</div><div>Person-workAt->Organisation.name</div><div>↓</div><div></div></div>				
limit	10				
CPs	1.3, 2.3, 2.4, 3.3				
relevance	This query looks for paths of length two or three, starting from a Person , moving to friends or friends of friends, and ending at a Company . In this query, there are selective joins and a top-k order by that can be exploited for optimizations.				