

## BI / read / 14

BI 1	query	BI / read / 14			
BI 2	title	International dialog			
BI 3	pattern	<div>For each pair of countries, calculate the cost as a sum of cases #1-5. Cases that have a match add to the final score with the specified value. Each case only counts once, multiple matches do not increase to the score.</div> <div><div><div>Country</div><div>name = \$country1</div></div><div>city1: City</div><div>person1: Person</div><div>name</div><div>id</div><div>isPartOf</div><div>isLocatedIn</div></div> <div><div><div>Country</div><div>name = \$country2</div></div><div>City</div><div>person2: Person</div><div>id</div><div>isPartOf</div><div>isLocatedIn</div></div> <div><div>Case 1: score += 4</div><div><div>person1: Person</div><div>person2: Person</div><div>Comment</div><div>Message</div><div>hasCreator</div><div>replyOf</div></div></div> <div><div>Case 2: score += 1</div><div><div>person1: Person</div><div>person2: Person</div><div>Message</div><div>Comment</div><div>hasCreator</div><div>replyOf</div></div></div> <div><div>Case 3: score += 15</div><div><div>person1: Person</div><div>person2: Person</div><div>knows</div></div></div> <div><div>Case 4: score += 10</div><div><div>person1: Person</div><div>person2: Person</div><div>Message</div><div>likes</div><div>hasCreator</div></div></div> <div><div>Case 5: score += 1</div><div><div>person1: Person</div><div>person2: Person</div><div>Message</div><div>likes</div><div>hasCreator</div></div></div>			
BI 4					
BI 5					
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	desc.	<p>Consider all pairs of people (person1, person2) such that one is located in a City of Country country1 and the other is located in a City of Country country2. For each City of Country country1, return the highest scoring pair. The score of a pair is defined as the sum of the subscores awarded for the following kinds of interaction. The initial value is score = 0.</p> <ol style="list-style-type: none"><li>1. person1 has created a reply Comment to at least one Message by person2: score += 4</li><li>2. person1 has created at least one Message that person2 has created a reply to: score += 1</li><li>3. person1 and person2 know each other: score += 15</li><li>4. person1 liked at least one Message by person2: score += 10</li><li>5. person1 has created at least one Message that was liked by person2: score += 1</li></ol> <p>Consequently, the maximum score a pair can obtain is: 4 + 1 + 15 + 10 + 1 = 31.</p> <p>This query has two variants based on whether the input parameters are selected as correlated (close countries) or uncorrelated (far countries).</p>			
	params	<div><div>1</div><div>country1</div><div>Long String</div></div> <div><div>2</div><div>country2</div><div>Long String</div></div>	<div>A: correlated with parameter country2, i.e. the countries are close and there are many Persons visiting both Countries.</div> <div>B: uncorrelated with parameter country2, i.e. the countries are afar and there are few Persons visiting both Countries.</div>		
	result	<div><div>1</div><div>person1.id</div><div>ID</div><div>R</div></div> <div><div>2</div><div>person2.id</div><div>ID</div><div>R</div></div> <div><div>3</div><div>city1.name</div><div>Long String</div><div>R</div></div> <div><div>4</div><div>score</div><div>32-bit Integer</div><div>C</div></div>			
	sort	<div><div>1</div><div>score</div><div>↓</div></div> <div><div>2</div><div>person1.id</div><div>↑</div></div> <div><div>3</div><div>person2.id</div><div>↑</div></div>			
	CPs	1.3, 1.4, 2.1, 3.1, 3.3, 5.1, 5.2, 5.3, 8.3, 8.4			