

## BI / read / 6

BI 1	query	BI / read / 6			
BI 2	title	Most authoritative users on a given topic			
BI 3	pattern	<pre> graph TD     Tag[Tag] -- "name = \$tag" --&gt; message1[message1: Message]     message1 -- "hasTag" --&gt; Tag     message1 -- "hasCreator" --&gt; person1[person: Person]     person1 -- "hasCreator" --&gt; message1     person1 -- "likes" --&gt; p2[p2: Person]     p2 -- "likes" --&gt; person1     p2 -- "likes" --&gt; message2[message2: Message]     message2 -- "likes" --&gt; p2     message2 -- "likes" --&gt; p3[p3: Person]     p3 -- "likes" --&gt; message2     p2 -- "likes" --&gt; p3     p3 -- "likes" --&gt; p2     </pre> <p>person.authorityScore = sum(p2.popularityScore)</p> <p>Compute p2.popularityScore</p> <p>p2: Person</p> <p>hasCreator</p> <p>message2: Message</p> <p>«opt» likes</p> <p>p2.popularityScore = count(p3)</p> <p>p3: Person</p>			
BI 12	desc.	<p>Given a Tag (tag), find all Persons (person) that ever created a Message with the Tag. For each of these Persons (person) compute their “authority score” as follows:</p> <ul style="list-style-type: none"> <li>The “authority score” is the sum of “popularity scores” of the Persons (p2) that liked any of that Person’s Messages with the given Tag (same criterion as for message1).</li> <li>A Person’s (p2) “popularity score” is defined as the total number of likes on all of their Messages (message2).</li> </ul>			
BI 20	params	1	tag	Long String	Tags with a similar amount of Messages are selected
	result	1	person.id	ID	R
		2	authorityScore	32-bit Integer	A
	sort	1	authorityScore	↓	
		2	person1.id	↑	
	limit	100			
	CPs	1.2, 2.3, 3.3, 6.1, 8.2			
	relevance	Computing the authority scores might involve computing the popularity score for the same Person multiple times. Implementations are advised to avoid such redundant computations.			