

## BI / read / 2

query	BI / read / 2																																		
title	Top tags for country, age, gender, time																																		
pattern	<div><div><div>country: Country</div><div>name = \$country1 or name = \$country2</div><div>name</div></div><div>City</div><div>person: Person</div><div>tag: Tag</div><div>message: Message</div><div>City -- isPartOf --&gt; country: Country</div><div>City -- isLocatedIn --&gt; person: Person</div><div>person: Person -- hasCreator --&gt; message: Message</div><div>message: Message -- hasTag --&gt; tag: Tag</div><div>message: Message -- messageCount = count --&gt; tag: Tag</div><div>message: Message -- creationDate &gt;= \$date1 and creationDate &lt;= \$date2 --&gt; tag: Tag</div><div>message: Message -- month(creationDate) --&gt; tag: Tag</div><div>message: Message -- messageCount &gt; 100 --&gt; tag: Tag</div></div>																																		
desc.	<p>Select all Messages created in the range of [startDate, endDate] by Persons located in country1 or country2. Select the creator Persons and the Tags of these Messages. Split these Persons, Tags and Messages into a 5-level grouping:</p> <ol style="list-style-type: none"><li>1. name of country of Person,</li><li>2. month the Message was created,</li><li>3. gender of Person,</li><li>4. age group of Person, defined as years between person’s birthday and end of simulation (2013-01-01), divided by 5, rounded down (partial years do not count),</li><li>5. name of tag attached to Message.</li></ol> <p>Consider only those groups where number of Messages is greater than 100.</p>																																		
params	<table><tr><td>1</td><td>startDate</td><td>Date</td><td></td></tr><tr><td>2</td><td>endDate</td><td>Date</td><td></td></tr><tr><td>3</td><td>country1</td><td>String</td><td></td></tr><tr><td>4</td><td>country2</td><td>String</td><td></td></tr></table>					1	startDate	Date		2	endDate	Date		3	country1	String		4	country2	String															
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result	<table><tr><td>1</td><td>country.name</td><td>String</td><td>R</td><td></td></tr><tr><td>2</td><td>messageMonth</td><td>32-bit Integer</td><td>R</td><td>1–12</td></tr><tr><td>3</td><td>person.gender</td><td>String</td><td>R</td><td>male or female</td></tr><tr><td>4</td><td>ageGroup</td><td>32-bit Integer</td><td>C</td><td></td></tr><tr><td>5</td><td>tag.name</td><td>String</td><td>R</td><td></td></tr><tr><td>6</td><td>messageCount</td><td>64-bit Integer</td><td>A</td><td>The number of messages in the group</td></tr></table>					1	country.name	String	R		2	messageMonth	32-bit Integer	R	1–12	3	person.gender	String	R	male or female	4	ageGroup	32-bit Integer	C		5	tag.name	String	R		6	messageCount	64-bit Integer	A	The number of messages in the group
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CPs	1.1, 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 8.2, 8.5																																		