

## BI / read / 12

|         |   |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
|---------|---|----------------|--|--|--|---|--------------|----------------|---|----------------------------|---|-----------------|----------------|--|--|---|-----------|----------|--|--|
| query   | BI / read / 12  |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| title   | How many persons have a given number of messages  |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| pattern | <div><div><div>2. personCount = count</div><div><div>Person</div></div><div>count Persons grouped by messageCount value</div></div><div><div>1. messageCount = count</div><div><div>Message</div><div>content not empty and length &lt; \$lengthThreshold and \$date &lt; creationDate</div></div></div><div><div>Post</div><div>language in \$languages</div></div><div><div>hasCreator</div><div>replyOf*0..</div></div></div>  |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| desc.   | <p>For each Person, count the number of Messages they made (messageCount). Only count Messages with the following attributes:</p> <ul style="list-style-type: none"><li>• Its content is not empty (and consequently, the imageFile attribute is empty for Posts).</li><li>• Its length is below the lengthThreshold (exclusive, equality is not allowed).</li><li>• Its creationDate is after date (exclusive, equality is not allowed).</li><li>• It is written in any of the given languages.<ul style="list-style-type: none"><li>– The language of a Post is defined by its language attribute.</li><li>– The language of a Comment is that of the Post that initiates the thread where the Comment replies to.</li></ul></li></ul> <p>The Post and Comments in the reply tree’s path (from the Message to the Post) do not have to satisfy the constraints for content, length and creationDate.</p> <p>For each messageCount value, count the number of Persons with exactly messageCount Messages (with the required attributes).</p> |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| params  | <table><tr><td>1</td><td>date</td><td>Date</td><td colspan="2"></td></tr><tr><td>2</td><td>lengthThreshold</td><td>32-bit Integer</td><td colspan="2">Selected as balanced against date to filter around 30% of the Messages within a language and keep the variance low</td></tr><tr><td>3</td><td>languages</td><td>{String}</td><td colspan="2">Only the most frequently used languages are selected</td></tr></table>   |                |  |  |  | 1 | date         | Date           |   |                            | 2 | lengthThreshold | 32-bit Integer | Selected as balanced against date to filter around 30% of the Messages within a language and keep the variance low |  | 3 | languages | {String} | Only the most frequently used languages are selected |  |
| 1       | date  | Date           |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| 2       | lengthThreshold   | 32-bit Integer | Selected as balanced against date to filter around 30% of the Messages within a language and keep the variance low |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| 3       | languages   | {String}       | Only the most frequently used languages are selected   |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| result  | <table><tr><td>1</td><td>messageCount</td><td>32-bit Integer</td><td>A</td><td>Number of Messages created</td></tr><tr><td>2</td><td>personCount</td><td>32-bit Integer</td><td>A</td><td>Number of Persons with messageCount Messages</td></tr></table>  |                |  |  |  | 1 | messageCount | 32-bit Integer | A | Number of Messages created | 2 | personCount     | 32-bit Integer | A  | Number of Persons with messageCount Messages |   |           |          |  |  |
| 1       | messageCount  | 32-bit Integer | A  | Number of Messages created                   |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| 2       | personCount   | 32-bit Integer | A  | Number of Persons with messageCount Messages |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| sort    | <table><tr><td>1</td><td>personCount</td><td>↓</td><td colspan="2"></td></tr><tr><td>2</td><td>messageCount</td><td>↓</td><td colspan="2"></td></tr></table>  |                |  |  |  | 1 | personCount  | ↓              |   |                            | 2 | messageCount    | ↓              |  |  |   |           |          |  |  |
| 1       | personCount   | ↓              |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| 2       | messageCount  | ↓              |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| limit   | n/a   |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |
| CPs     | 1.1, 1.2, 1.4, 3.2, 4.2, 4.3, 8.1, 8.2, 8.3, 8.4, 8.5   |                |  |  |  |   |              |                |   |                            |   |                 |                |  |  |   |           |          |  |  |