

## BI / read / 1

|       |         |   |                      |                |   |
|-------|---------|---|----------------------|----------------|---|
| BI 1  | query   | BI / read / 1   |                      |                |   |
| BI 2  | title   | Posting summary   |                      |                |   |
| BI 3  | pattern |   |                      |                |   |
| BI 4  |         | <div>message: Message</div>   |                      |                |   |
| BI 5  |         | <div>creationDate &lt; \$date</div>   |                      |                |   |
| BI 6  | desc.   |   |                      |                |   |
| BI 7  |         | <div>length</div>   |                      |                |   |
| BI 8  |         | <div>year(creationDate)</div>   |                      |                |   |
| BI 9  | desc.   | <p>Given a date, find all Messages created before that date. Group them by a 3-level grouping:</p> <ol style="list-style-type: none"> <li>by year of creation</li> <li>for each year, group into Message types: is Comment or not</li> <li>for each year-type group, split into four groups based on length of their content <ul style="list-style-type: none"> <li>0: 0 &lt;= length &lt; 40 (short)</li> <li>1: 40 &lt;= length &lt; 80 (one liner)</li> <li>2: 80 &lt;= length &lt; 160 (tweet)</li> <li>3: 160 &lt;= length (long)</li> </ul> </li> </ol> |                      |                |   |
| BI 10 |         |   |                      |                |   |
| BI 11 |         |   |                      |                |   |
| BI 12 |         |   |                      |                |   |
| BI 13 |         |   |                      |                |   |
| BI 14 | params  |   |                      |                |   |
| BI 15 |         | 1   | date                 | Date           |   |
| BI 16 | result  | 1   | year                 | 32-bit Integer | R   |
| BI 17 |         | 2   | isComment            | Boolean        | M   |
| BI 18 |         | 3   | lengthCategory       | String         | C   |
| BI 19 |         | 4   | messageCount         | 32-bit Integer | A   |
| BI 20 |         | 5   | averageMessageLength | 32-bit Integer | A   |
| BI 21 |         | 6   | sumMessageLength     | 32-bit Integer | A   |
| BI 22 |         | 7   | percentageOfMessages | 32-bit Float   | A   |
| BI 23 | sort    | 1   | year                 | ↓              |   |
| BI 24 |         | 2   | isComment            | ↑              | false < true, i.e. the ordering puts Posts first, and Comments second     |
| BI 25 |         | 3   | lengthCategory       | ↑              | order based on the length of the category, 0 (short), 1 (one liner), etc. |
|       | CPs     | 1.2, 3.2, 4.1, 8.5  |                      |                |   |