

## BI / read / 1

BI 1	query	BI / read / 1			
BI 2	title	Posting summary			
BI 3	pattern	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <b>▼ message: Message</b>  <i>creationDate &lt; \$datetime</i>  <b>length</b>  <i>year(creationDate)</i> </div>			
BI 4		<p>Given a \$datetime, find all Messages created before that moment. Group them by a 3-level grouping:</p> <ol style="list-style-type: none"> <li>1. by year of creation</li> <li>2. for each year, group into Message types: is Comment or not</li> <li>3. for each year-type group, split into four groups based on length of their content <ul style="list-style-type: none"> <li>• 0: <math>0 \leq \text{length} &lt; 40</math> (short)</li> <li>• 1: <math>40 \leq \text{length} &lt; 80</math> (one liner)</li> <li>• 2: <math>80 \leq \text{length} &lt; 160</math> (tweet)</li> <li>• 3: <math>160 \leq \text{length}</math> (long)</li> </ul> </li> </ol>			
BI 5	description				
BI 6	params	1	\$datetime	DateTime	
BI 7		result	1	year	32-bit Integer
BI 8			2	isComment	Boolean
BI 9			3	lengthCategory	32-bit Integer
BI 10			4	messageCount	64-bit Integer
BI 11			5	averageMessageLength	32-bit Float
BI 12			6	sumMessageLength	64-bit Integer
BI 13			7	percentageOfMessages	32-bit Float
BI 14	sort	1	year	↓	
BI 15		2	isComment	↑	False < True, i.e. Posts come first and Comments second
BI 16		3	lengthCategory	↑	
BI 17	limit	n/a			
BI 18	CPs	1.2, 3.2, 4.1, 4.2, 8.5			
BI 19					
BI 20					