

## BI / read / 1

BI 1

BI 2

BI 3

BI 4

BI 5

BI 6

BI 7

BI 8

BI 9

BI 10

BI 11

BI 12

BI 13

BI 14

BI 15

BI 16

BI 17

BI 18

BI 19

BI 20

query	BI / read / 1																																							
title	Posting summary																																							
pattern	<table><tr><td colspan="2">message: Message</td></tr><tr><td colspan="2">creationDate &lt; \$datetime</td></tr><tr><td>length</td><td>year(creationDate)</td></tr></table>					message: Message		creationDate < \$datetime		length	year(creationDate)																													
message: Message																																								
creationDate < \$datetime																																								
length	year(creationDate)																																							
desc.	<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>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: <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>																																							
params	<table><tr><td>1</td><td>datetime</td><td>DateTime</td><td colspan="2">For later microbatches, later datetime parameters are selected keep the variance low (&lt;0.5%)</td></tr></table>	1	datetime	DateTime	For later microbatches, later datetime parameters are selected keep the variance low (<0.5%)																																			
1	datetime	DateTime	For later microbatches, later datetime parameters are selected keep the variance low (<0.5%)																																					
result	<table><tr><td>1</td><td>year</td><td>32-bit Integer</td><td>R</td><td>year(message.creationDate)</td></tr><tr><td>2</td><td>isComment</td><td>Boolean</td><td>M</td><td>True for Comments, False for Posts</td></tr><tr><td>3</td><td>lengthCategory</td><td>32-bit Integer</td><td>C</td><td>0 for short, 1 for one-liner, 2 for tweet, 3 for long</td></tr><tr><td>4</td><td>messageCount</td><td>32-bit Integer</td><td>A</td><td>Total number of Messages in that group</td></tr><tr><td>5</td><td>averageMessageLength</td><td>32-bit Float</td><td>A</td><td>Average length of the Message content in that group</td></tr><tr><td>6</td><td>sumMessageLength</td><td>32-bit Integer</td><td>A</td><td>Sum of all Message content lengths</td></tr><tr><td>7</td><td>percentageOfMessages</td><td>32-bit Float</td><td>A</td><td>Number of Messages in group as a percentage of all messages created before the given date</td></tr></table>					1	year	32-bit Integer	R	year(message.creationDate)	2	isComment	Boolean	M	True for Comments, False for Posts	3	lengthCategory	32-bit Integer	C	0 for short, 1 for one-liner, 2 for tweet, 3 for long	4	messageCount	32-bit Integer	A	Total number of Messages in that group	5	averageMessageLength	32-bit Float	A	Average length of the Message content in that group	6	sumMessageLength	32-bit Integer	A	Sum of all Message content lengths	7	percentageOfMessages	32-bit Float	A	Number of Messages in group as a percentage of all messages created before the given date
1	year	32-bit Integer	R	year(message.creationDate)																																				
2	isComment	Boolean	M	True for Comments, False for Posts																																				
3	lengthCategory	32-bit Integer	C	0 for short, 1 for one-liner, 2 for tweet, 3 for long																																				
4	messageCount	32-bit Integer	A	Total number of Messages in that group																																				
5	averageMessageLength	32-bit Float	A	Average length of the Message content in that group																																				
6	sumMessageLength	32-bit Integer	A	Sum of all Message content lengths																																				
7	percentageOfMessages	32-bit Float	A	Number of Messages in group as a percentage of all messages created before the given date																																				
sort	<table><tr><td>1</td><td>year</td><td>↓</td><td colspan="2"></td></tr><tr><td>2</td><td>isComment</td><td>↑</td><td colspan="2">False &lt; True, i.e. Posts come first and Comments second</td></tr><tr><td>3</td><td>lengthCategory</td><td>↑</td><td colspan="2">order based on the lengthCategory value</td></tr></table>					1	year	↓			2	isComment	↑	False < True, i.e. Posts come first and Comments second		3	lengthCategory	↑	order based on the lengthCategory value																					
1	year	↓																																						
2	isComment	↑	False < True, i.e. Posts come first and Comments second																																					
3	lengthCategory	↑	order based on the lengthCategory value																																					
limit	n/a																																							
CPs	1.2, 3.2, 4.1, 4.2, 8.5																																							