MERGE SORT REPORT

by Freya Mehta
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For some increasing large sized inputs, these are the respective time taken for the three different codes.

msort : Normal merge sort code
pmsort : Conccurent merge sort using processes
tmsort : Multithreaded merge sort

N	Msort	Pmsort	Tmsort
200	0.016000	0.793000	0.22900
2000	0.520000	1.689000	22.190000
8000	2.476000	5.730000	110.895000
10000	3.047000	6.769000	152.579000
100000	11.025000	19.835000**	Seg fault

** NOTE: This just ran for 1 time. But in general it is giving error in some resource creation or utilization.It cannot run for this big input. It will fork too much. CPU won't be able to allocate this much resources.

Merge sort with threading takes much more time due to creation of too many threads. The SegFault at large input therefore occurs due to the creation of too many threads (O(logn) number of threads).

Similarly, pmsort takes more time than msort too due to the creation of a lot of processes which increase the number of page faults, context switches and CPU migrations.