Parallel and Concurrent Programming

Assignment 2

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Waiting Time Comparision
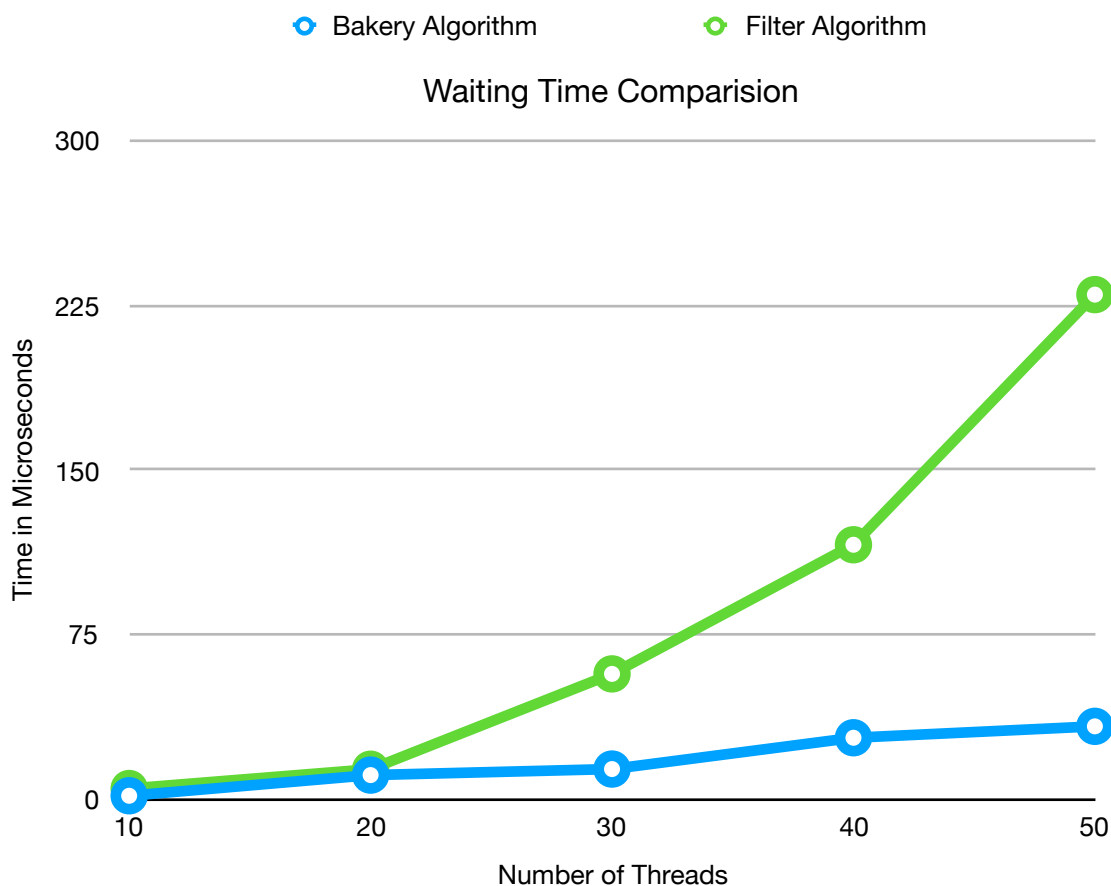
We can clearly see that the average waiting time for Filter Algorithm is much more than for Bakery Algorithm. This is because we have on more loop which runs in filter algorithm for increasing the level. So each and every thread has to go through all the n-1 levels. This is not the case in

Bakery Algorithm where there are no levels. We just check for superior thread and allocate the lock to it.

We can also notice that the difference in the waiting time increases as the number of threads increases. This can also be related to the order of the algorithms. Filter Algorithm is of O(n^2 * m) where as Bakery Algorithm is of O(n * m)

This reasons the graph.