CS342 Project 1 Report

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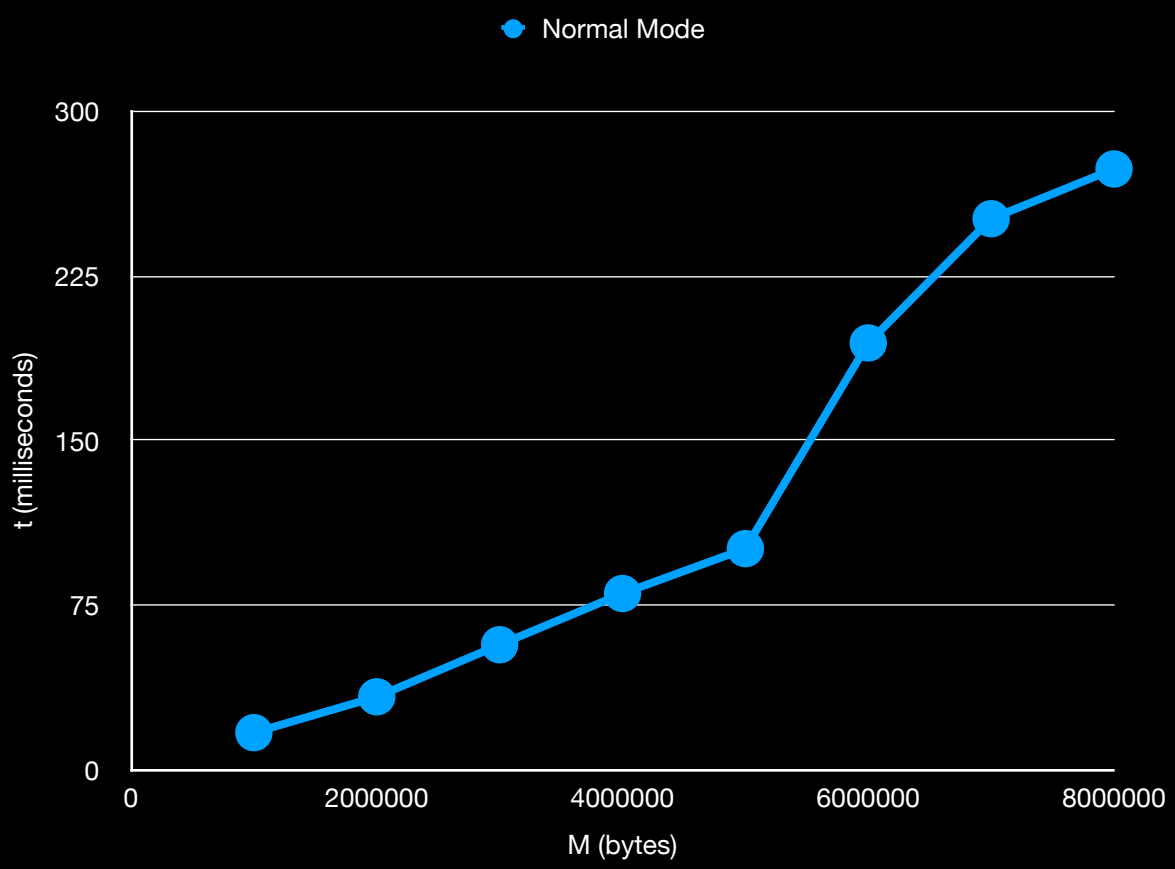
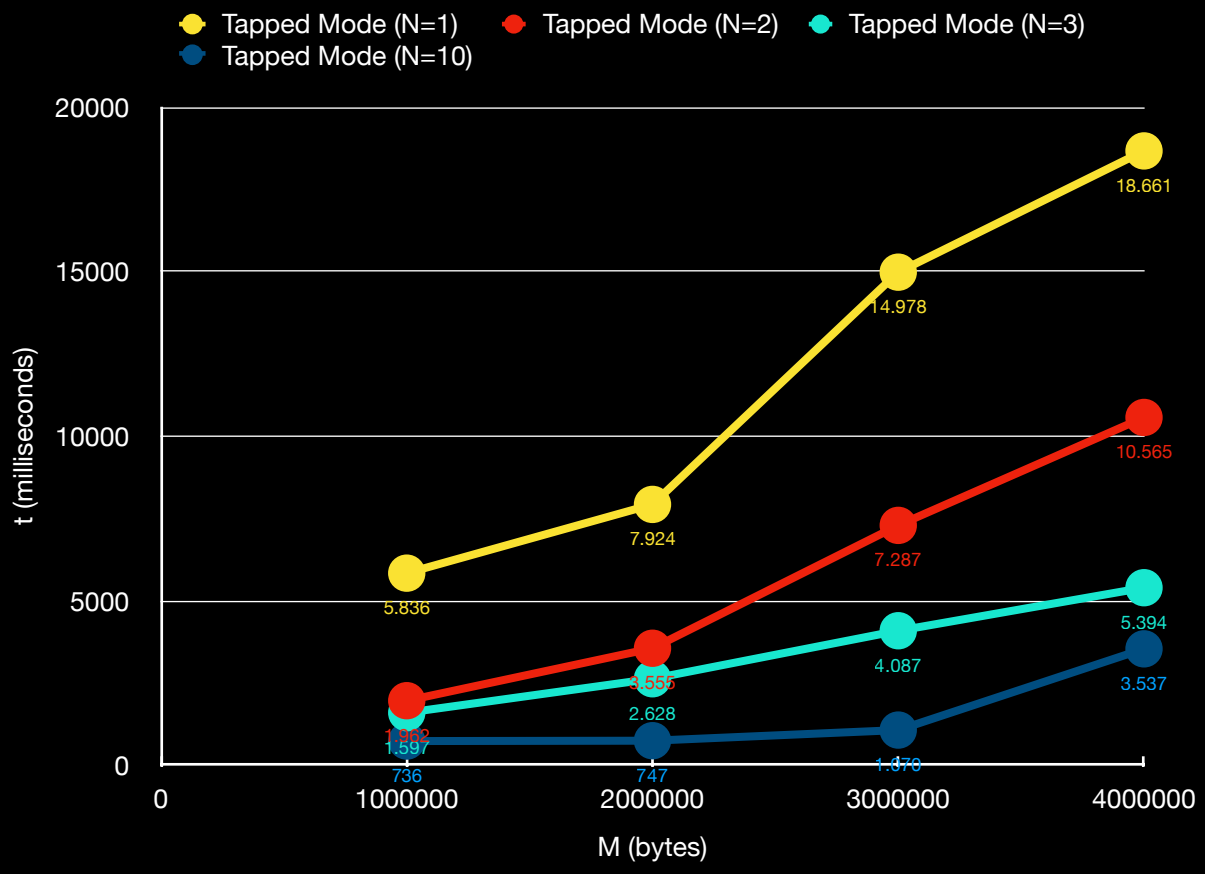
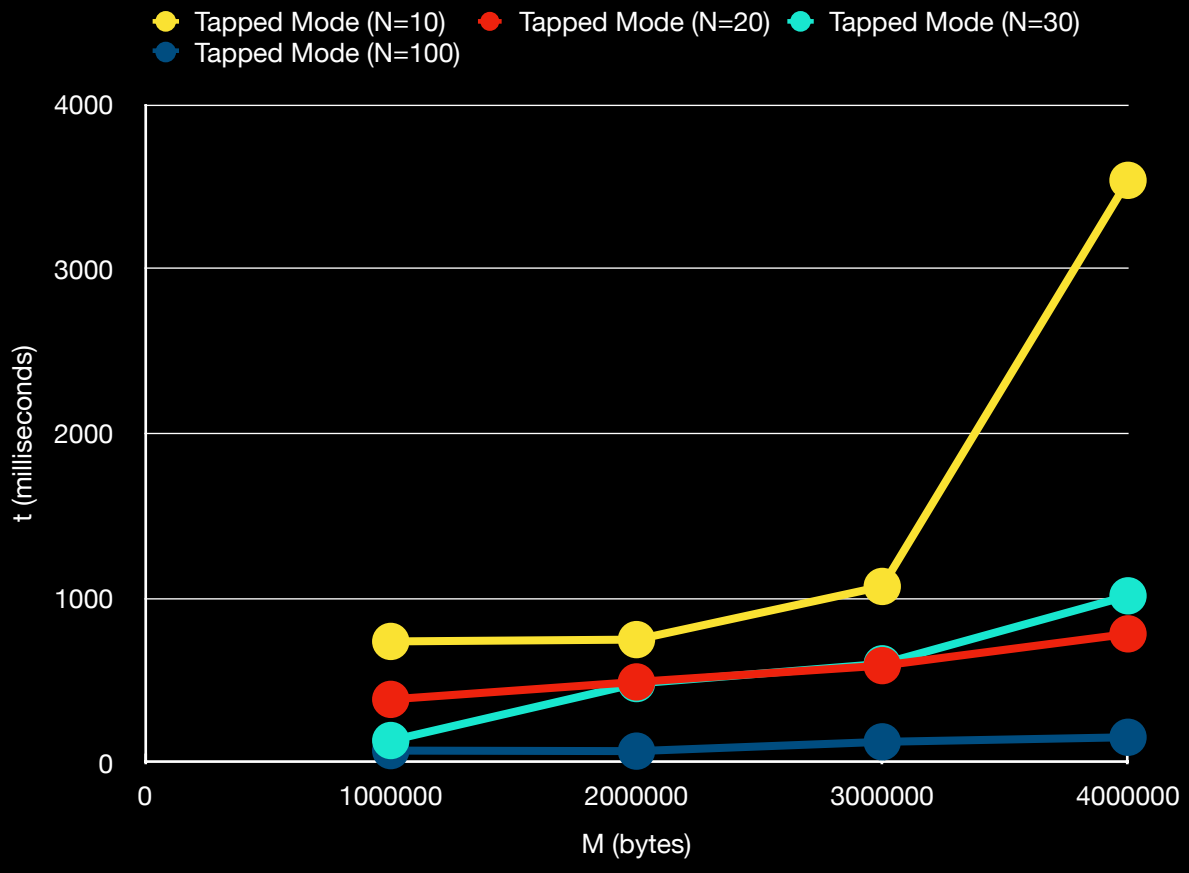
Normal Mode:

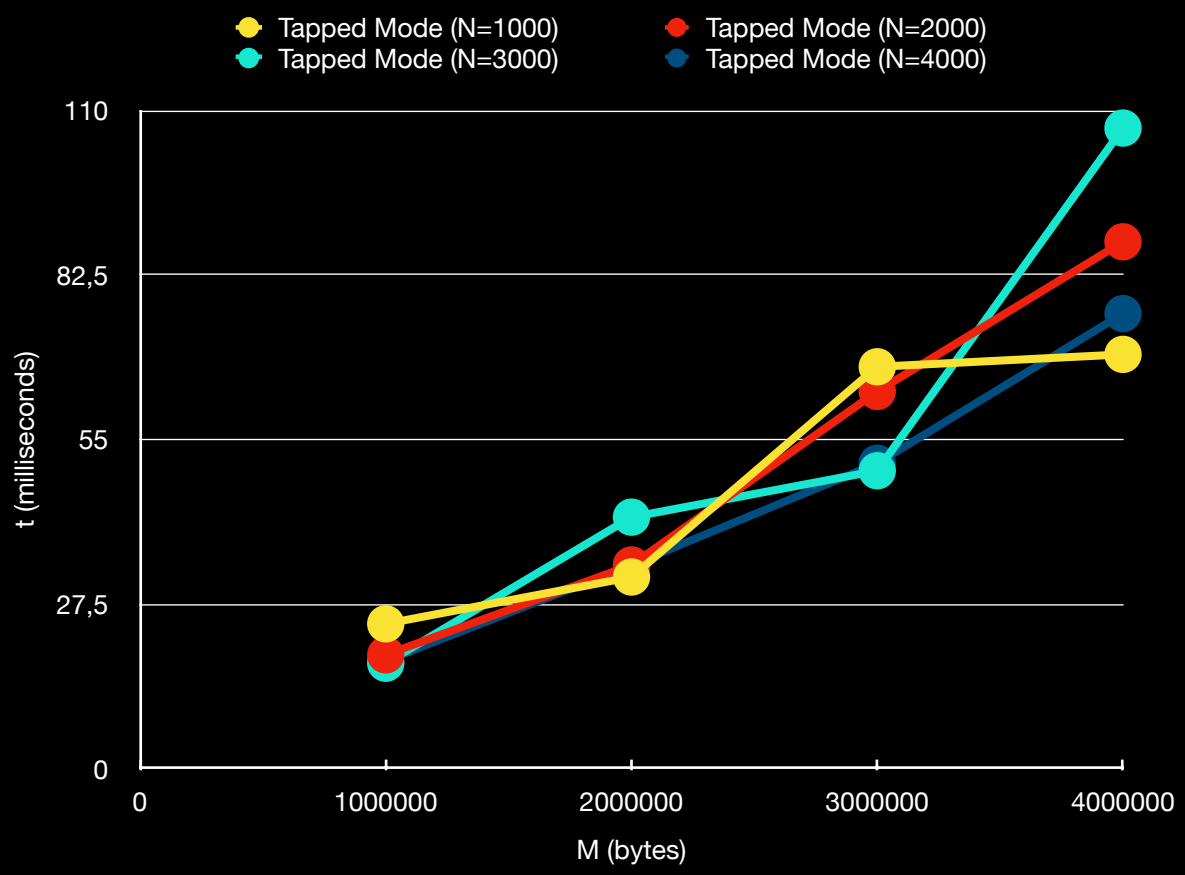


We can see from this plot that as the M value increases linearly, execution time also increases somewhat linearly.

Tapped Mode for Different M and N values:





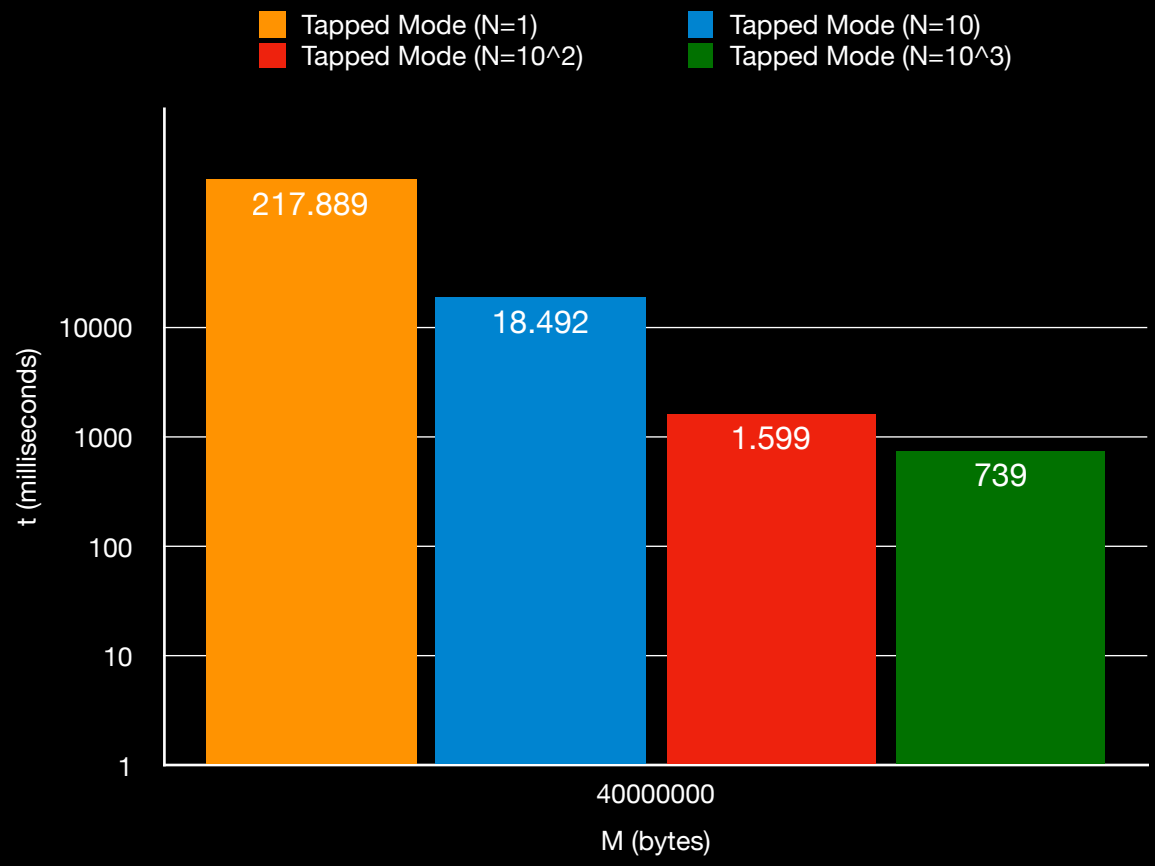


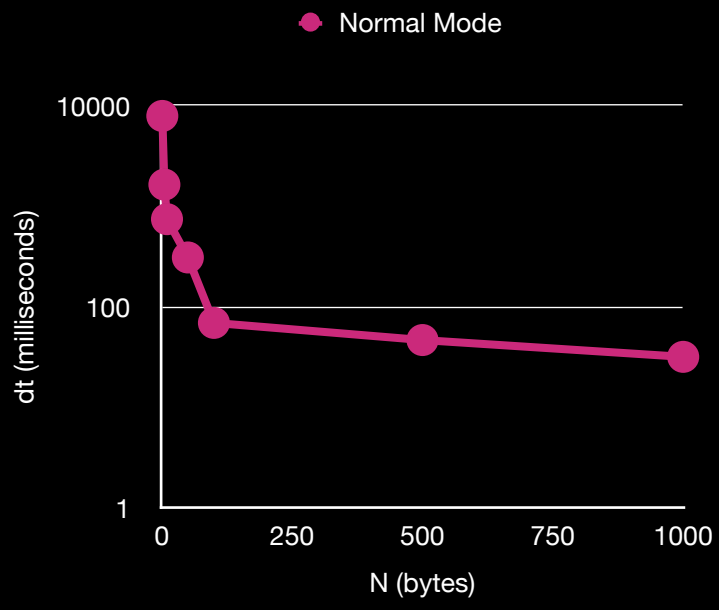
We can say that execution time of tapped mode increases linearly as N value increases linearly based on the plots above.

Also, execution time increases linearly in the lower N values as we increase M value linearly.

However, we can see that the execution time gets closer between each other as the N value gets bigger. This can be seen more clearly from the plot in the next page.

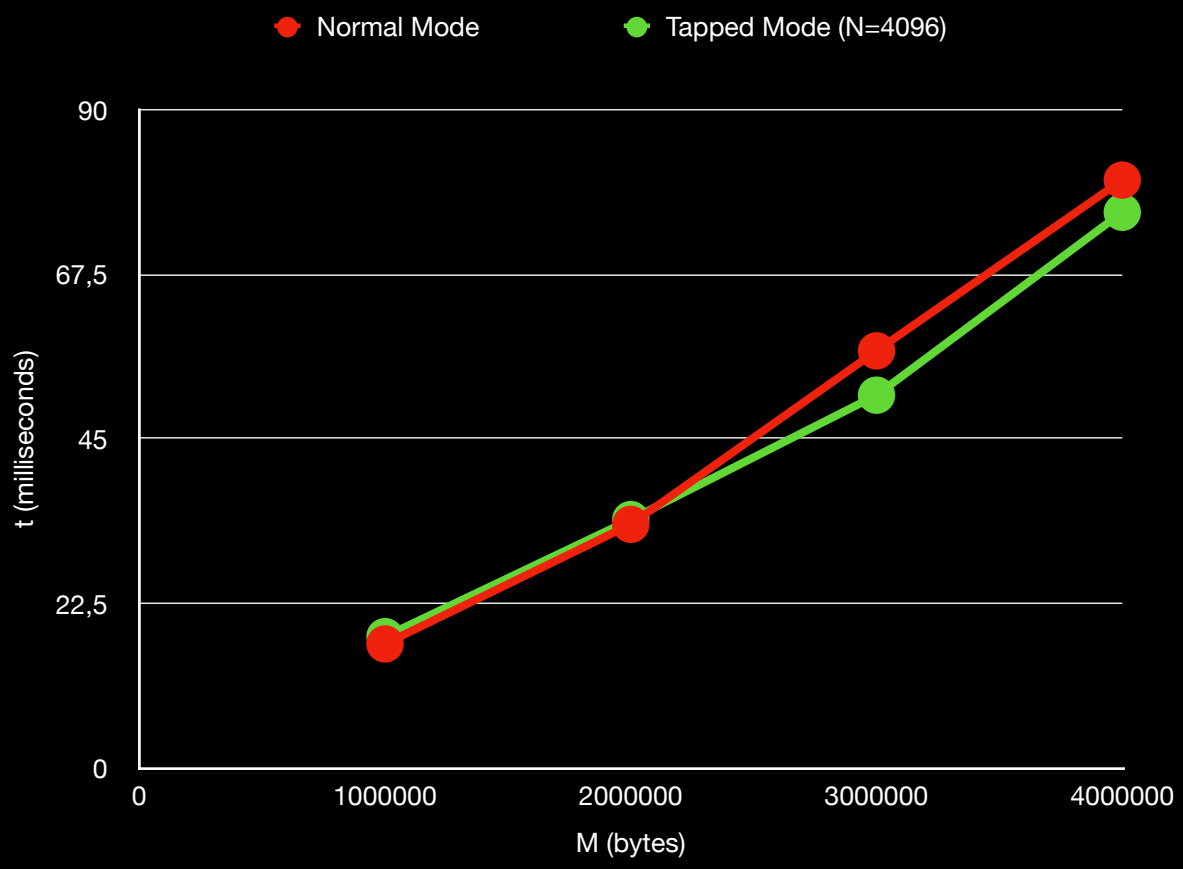
Tapped Mode for Exponential N Values And Constant M Value:





In conclusion, the difference of execution time between the columns get smaller as N gets closer to maximum value, as shown in plots above.

Normal Mode vs Tapped Mode:



Considering the plot above, normal mode has very similar performance to tapped mode where N has the highest value (N=4096).

Performance difference between each increases as the N value decreases:

Normal mode is 109% faster than the Tapped Mode when N value is 100.

Normal mode is 2163% faster than the Tapped Mode when N value is 10.

Normal mode is 17584% faster than the Tapped Mode when N value is 1.