CS3523 assignment 3

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- The file basic.h contains some structures and classes that are required for EDF and RMS scheduling algorithms. It also contains a common part of scheduling algorithm of EDF and RMS scheduling.
- Both EDF and RMS scheduling have different rules but the structure of their algorithms is similar.
  The algorithms take input from inp-params.txt and store in an array called $input_data()$.
  Then a scheduling algorithm which follows the rules of RMS and EDF schdeules the processes into an array called $sched_set()$.
- The output is generated to "RMS-Log.txt" and "RMS-stats.txt" incase of RMS scheduling and "EDF-Log.txt" and "EDF-stats.txt" incase of EDF scheduling.
- Some problems that arised while writing algo's are
  - To calculate the waiting time initially I had to write a while loop that adds 1 to each process that is not running but this cause the time taken to run increase significantly and processes that have completed running also had their waiting time incresed.
    There was a quick fix by having data of which process compled but it was not efficient.
    So I added a variable to the $input_data$ class and made changes so that the deadline time is increased after each process finishes execution.
  - Another problem was to include the context-switch time, for this I added a variable to the stimulation algorigth in basic.h that holds the value of context switch time.

The red lines/dots represent EDF scheduling.
The blue lines/points represent RMS scheduling.

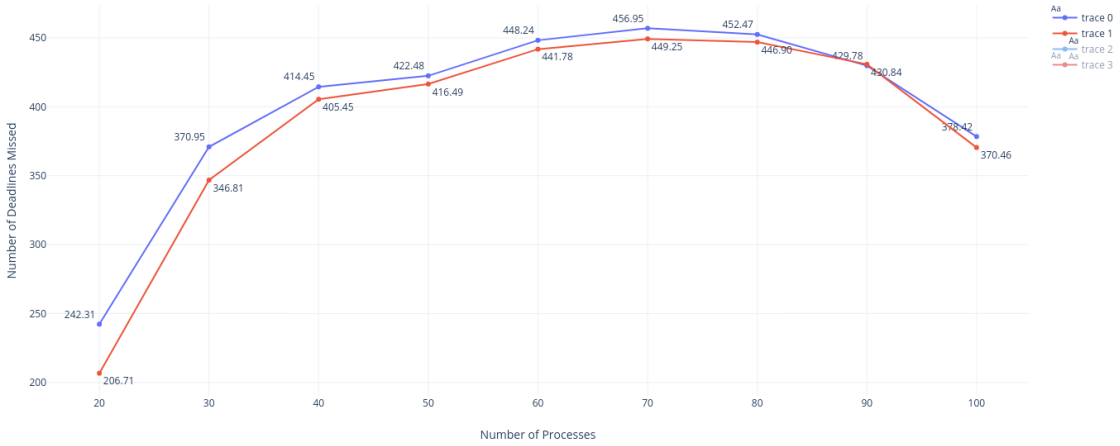

Figure 1: NO.OF Deadlines missed vs NO.OF Processes

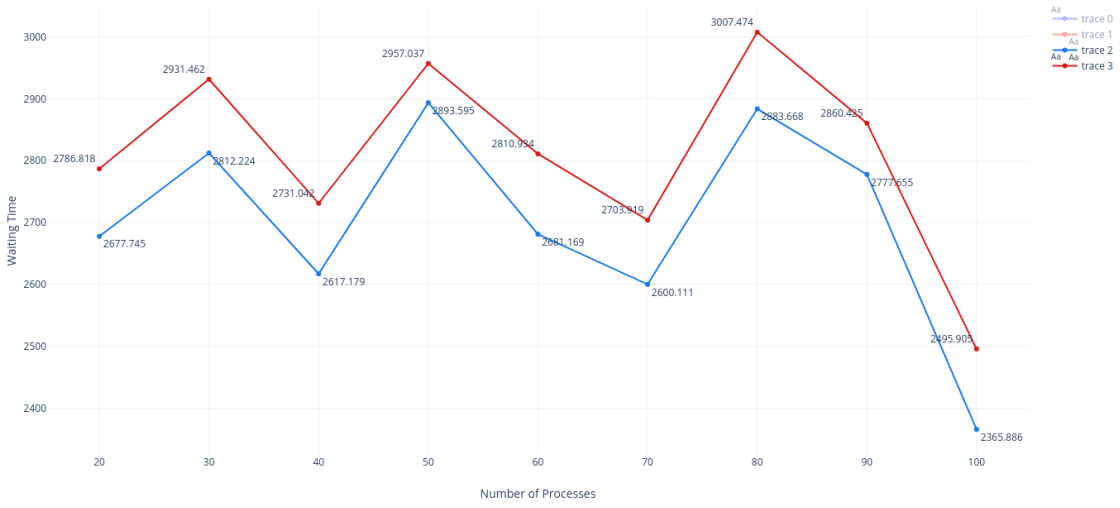

Figure 2: Waiting Time vs NO.OF Processes