

Readme.1_1

- In this exercise we are asked to use Linux's scheduling policies **SCHED_OTHER**, **SCHED_RR**, **SCHED_FIFO**. We have created three threads **Thread_A**, **Thread_B**, **Thread_C** each of which does counting calling their respective functions **count_A** **Count_B** **Count_C** from $1-2^{32}$.
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- In the main program , we have created three threads using **p_thread_create()** for each thread which calls their respective launch functions **thread_A_launch** , **thread__B_launch** and **thread_C_launch** and joining these p_threads in the main program itself.
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- In **thread_launch_A**: we have first set the scheduling policy to **SCHED_OTHER** and then used the function **clock_gettime()** with **timespec start** as one parameter and setting the **CLOCK_REALTIME** to start the time for function **count_A** and then stopped the time using the same function **clock_gettime** with **timespec stop** as one of the parameter
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- Similarly for **thread_launch_B** with scheduling policy to **SCHED_RR** and **thread_launch_C** with scheduling policy to **SCHED_FIFO** with increasing the priority +2 every time starting from an integer value of 2 to 20 to get a total of 10 readings in total . We have saved all the time values(**accum**) in file **Assignment_2_values.txt** and tried to plot a histogram graph of it.
- It is observed in the graph that **SCHED_FIFO** has always taken **minimum time** to run the count function and **SCHED_OTHER** has taken **maximum** time among the three policies to run the count function in all the 10 readings. Also , **SCHED_RR** takes less time than **SCHED_OTHER** and more time than **SCHED_FIFO**.