Timing Fork Program

I. Problem Statement

The assigned task was to test how long, in microseconds, it took to run a fork() function.

II. Approach

The assignment requested that we use the gettimeofday() function to calculate how long the fork() function needed to complete. For this we were asked to program in C. Originally I used Visual Studio Code for this task but I found out later in the assignment that fork() does not work in Windows. Rather than take time that I did not have available to set up a virtual machine I used GDB Online Debugger to compile, debug, and output. Then I used Excel to make the graph.

III. Solution

Unfortunately, I was not able to figure out all of the issues. One or two values would come in much higher than the others (along the lines of 1.2x10­­19). I deleted the only occurrence of this from my histogram.

However, I noticed that, compared to my peers, I had several larger values that didn’t make sense. It is my opinion that this is caused by the online compiler I was using.

My largest value, ignoring the obvious error, was 77672 microseconds and my smallest value was 156 microseconds. It appeared that most of my values were from 200 to 300 microseconds. However, several larger values of several thousand microseconds messed with the histogram.

