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#                                     #  
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# Lab 01                             #  
#                                     #  
#####
```

<Part 0>

First, I established a connection to the timeshare, and wrote a simple first hello world program using the nano text editor, and ensured that it ran correctly using the gcc compiler. The rest of this lab I simply completed and compiled on my own machine.

For part 0, I was able to create the appropriate MPLAB X project, with the Hello World program. The main problems I encountered using the XC32 compiler and the simulator was setting up the project properties correctly. I had to manually allocate heap space, and had some trouble setting up the simulator. But, after being able to fix these issues using the project properties, it was quite easy to follow the directions. Since my Mac comes with gcc installed, obtaining the same result on my local OS was quite simple following the directions provided.

<Part 1>

Part 1 was quite simple to follow the directions, given that everything was set up correctly. I was able to use all the debugger options, and get the correct sorted number array and find the lines that were different from the parent version

Diff --> Lines 12-15, 17, 22, 23, 30, 35

<Part 2>

This part was also quite simple to figure out by following the instructions provided. The main issue I had here was finding the proper printf() format for printing the correct width and amount of decimal places, but once I got the hang of it it was easy enough to use.