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ECE 101-02 MATLAB and C Programming

Mr. Watchorn

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Mr. Watchorn,

Executive Summary

I’m fully prepared to start developing C code, and I wrote a little Hello World program to show that everything is working properly.

Discussion

I’m running this code on a Ryzen 7 5700x processor, which uses the standard x86 architecture. I’m developing using Visual Studio Code with the [MinGW gcc compiler](https://www.msys2.org/) for the windows 10 OS. However, my laptop runs Ubuntu 22.04, and is equally capable of developing C with VS Code and the natively installed GNU gcc compiler. In either case, I use a VS Code extension simply called “[Code Runner](https://marketplace.visualstudio.com/items?itemName=formulahendry.code-runner)” to cut out the step of manually compiling and executing my code.

Regardless of which compiler you use, it does the same thing. It converts human-readable C code into machine-level binary instructions to be loaded into system memory and executed. These executable files are most often saved as .exe files, which can be executed by the computer to run code.

I am familiar with the process of creating variables and storing values from MATLAB, as well as with printing, which is extremely similar. However, I only have a surface level understanding of header files, and although I fully conceptually understand pointers, I still don’t really understand how or why to use them.

The include statements at the beginning of the code are essentially importing libraries of code that can then be used in our program.

Every value explicitly stored in this program is of the ‘float’ (floating point number) type. However, each print statement takes an array of characters to print to the console.

Outcomes

Here is the output of my working program:  
A picture containing text, screenshot, font

Description automatically generated

Conclusions

As I said, you can see that I am fully ready to begin developing programs in the C language. Feel free to send me my first assignment as soon as you’re ready for work to begin.

Best,

Dylan