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Lab 1

In this lab, our group made a program to print the string "Hello World" to the terminal based of the size of variables in C. The platform chosen for this lab was Ubuntu 18 using the gcc compiler on a 64bit x86 machine. The size of an int on our machine was 4 bytes and the size of a long was 8 bytes. The output from our program is shown below:

```
jmoney@razer:~/Documents/ECE477/lab1$ ./partA
Prints Hello World equal to the number of bytes in an int
Hello World
Hello World
Hello World
Hello World
Prints Hello World equal to the number of bytes in a long
Hello World
Hello World
Hello World
Hello World
Hello World
Hello World
Hello World
Hello World
jmoney@razer:~/Documents/ECE477/lab1$
```

Where the program has no user input they cannot cause the program to fail, also error checking is not needed. There are no initializations that need to be performed in order for this program to run.

For something cool, the program was run on a Raspberry Pi 3B and colors were added to the text. The Raspberry Pi 3B is a 64bit machine, and was compiled using gcc and on Raspbian 9(Stretch). On the Raspberry Pi 3B, the size of an int was 4 bytes and the size of a long was also 4 bytes. To get the background color to change of the text, escape codes were used. The escape codes allowed for the background color of the printed text to change. There wasn't much difficulty using the Raspberry Pi 3B and the escape codes. This is mostly because all members of the group have a decent understanding of how to use both and have used both in the past. A reasonably technical person could easily replicate this, especially since it is fairly simple to do and there is plenty of documentation online if you do get stuck. The something cool was very cool! The output from running the code on a Raspberry Pi is shown below:

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```
pi@raspberrypi:~/Documents/ECE477/lab1 $ ./partB
Prints Hello World equal to the number of bytes in an int
Hello World
Hello World
Hello World
Hello World
Prints Hello World equal to the number of bytes in a long
Hello World
Hello World
Hello World
Hello World
pi@raspberrypi:~/Documents/ECE477/lab1 $
```