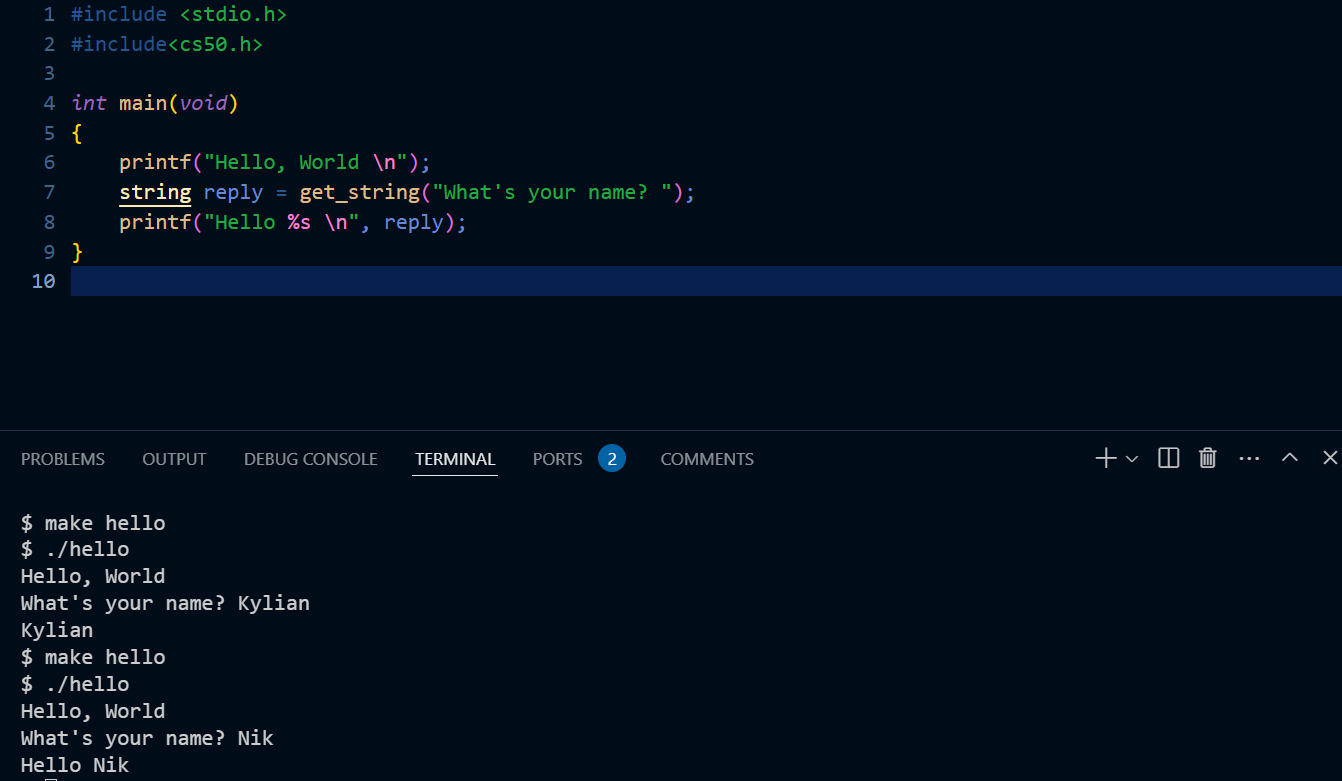
Machine Language:

1. Humans write “source code”
2. Computers only read binary, aka “machine code”
3. In the past, we used to use punch cards with holes inserted at different points to feed data to a computer.
4. If our input is the source code, and the output is machine code, then the algorithm which performs the conversion is the compiler

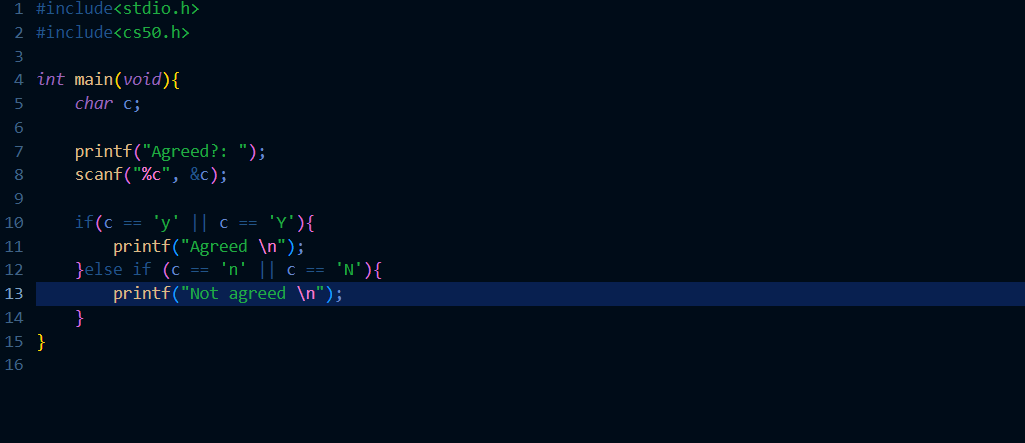
Hello World:

1. code filename.c – Creates a file with the name filename
2. make filename – This command will make the C source code into machine code
3. ./filename – This command lets you run your code
4. So the steps would be to create the file, then perform the conversion using the make command, and finally running the code itself.
5. By convention, always name your files in lowercase. Never use spaces while naming files.
6. The f in printf stands for formatted.
7. \n is the new line character. It is known as an escape sequence

CS50 Library:

1. When we say #include, essentially we are telling the compiler “Hey, there’s a file on the local hard drive that you need to go find, once you do, paste it here”.
2. Stdio.h is called a header file. It is a library. A library is code someone else wrote, that you can use.
3. manual.cs50.io – this website gives documentation of C.
4. “%s” is to output strings
5. Parameter = the placeholder for the function, to let it know we’re gonna pass something to it
6. Argument = The actual value that we pass
7. 
8. Note: get\_string is part of the cs50 header file, we can’t use it in the piscine
9. Note: scanf can only be used for receiving input. If we wanted to write “What’s your name?”, then we need to use a printf statement before it.
10. Note: the string data type is also part of the cs50 header file. We’ll need to use character arrays.
11. For formatting reference : “%s” for strings, “%i” for integers and “%c” for characters

Conditionals and variables:

1. Note: counter = counter + 1 is the same as counter += 1 and counter++
2. When we type ./filename to run the program, the ./ means that the file is in the current folder
3. scanf requires the format and also a memory address of the variable where it should put the value that was read. So we need %i and also the memory address symbol &
4. Note that all C strings end in \0. This in turn can cause a lot of buffer overflow issues, which in turn can cause hackers to exploit poorly written code.
5. When entering only a single character, use single quotes. When entering a string, use double quotes.
6. 
7. The above is the use of the OR operator in C