Programming 03
01c - C

The C Programming Language

- C is a low-level programming language (compared to Java at least)
- Originally developed in the 1970s by Dennis Ritchie
- It is not object-oriented
- It will let you do almost anything, so it won't stop you doing dangerous things
- Memory usage must be controlled by the coder

C Reference Material

- C Language Reference
  - https://www.gnu.org/software/gnu-c-manual/gnu-c-manual.html
- The C Standard Library
  - https://www.tutorialspoint.com/c_standard_library/index.htm
- The standard in textbooks
  - The C Programming Language – Kernigan & Ritchie
- Linux Manual pages
  - use the man command from the command line

Hello World

```c
#include <stdio.h>

int main(void)
{
    puts("Hello World");

    return (0);
}
```

gcc
The GNU C Compiler

- gcc –Wall main.c –o main
  - Will compile main.c to an executable named main
  - -Wall shows warnings as well as errors
- To compile multiple files
- gcc –Wall main.c hello.c –o main

Linux Terminal Commands

- Get the manual files on any command with
  - man <command>
- cd – change directory
- mkdir – make directory
- ls – list directory