Getting started with C

Adapted from materials by Dr. Carrier

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To run:

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./a.out
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You can think of this like importing in Python!

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int main() {
   …
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Is our “main function”.

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Execution always starts in the “main” function!

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`printf(“...”);`

Will print a formatted string to stdout

But in this case, it’s just a typical string.

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`return 0;`

Our main function returns an int (integer), so we actually need to return one!

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GNU C Compiler

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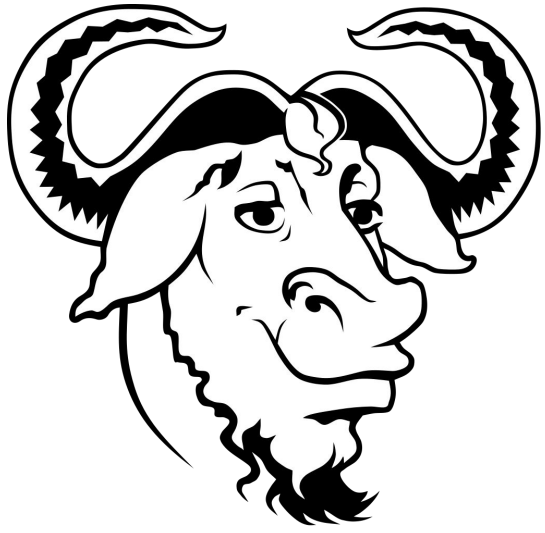

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- GNU C Compiler
- GNU Compiler Collection

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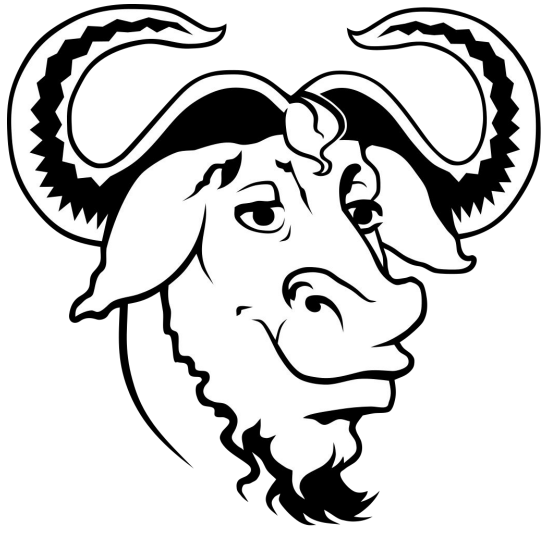

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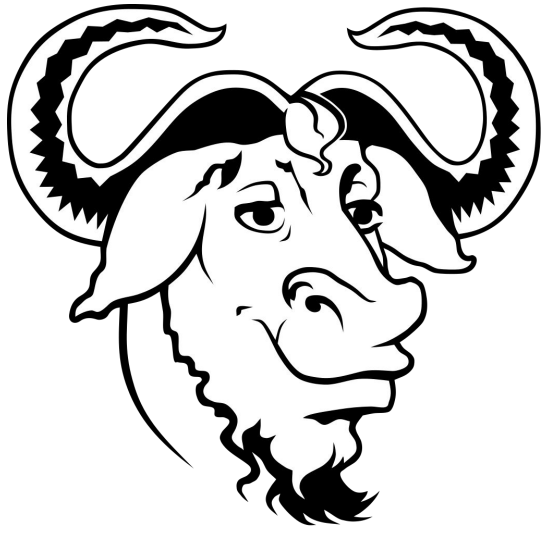

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- GNU C Compiler
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This compiles our source code into executable machine code (binary)

- Stored in the `a.out` file by default

Compiler flags

Specify the output file:

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gcc hello_world.c -o output_name
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WARNING, don’t do this:

```
gcc hello_world.c -o hello_world.c
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Compiler flags (continued)

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Debug flag: `-g` (we’ll discuss later)

Compiler flags (continued)

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Debug flag: `-g` (we’ll discuss later)

Warning flags:

- `-Wall` to enable all (can also enable some)

Installing gcc

Linux / WSL:

```
sudo apt-get update && sudo apt-get upgrade
```

```
sudo apt install build-essential
```

Mac:

```
brew install gcc
```