Welcome to COMP1521!

Agenda

- Intros
- Admin stuff
- Tutorial questions
- Lab tips

Introductions

- Me
- You
  - Name
  - Year & Degree
  - The best / worst part about COMP1511
  - Fun / interesting / boring fact

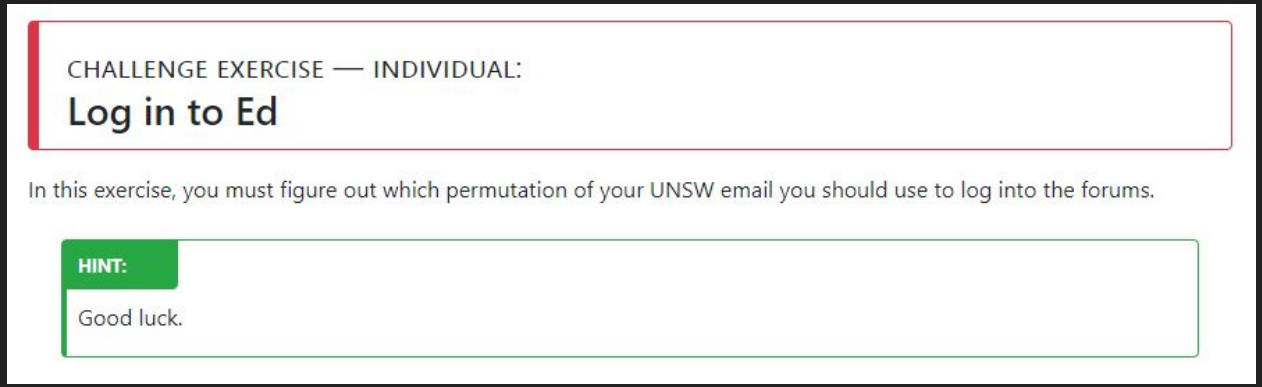
Admin Stuff

- Course website: https://cgi.cse.unsw.edu.au/~cs1521/
- Course structure
  - Lectures
  - Tutorials
  - Labs
  - Weekly Tests
  - Assignments
  - Final Exam

Admin Stuff

Help:

- Ed forum
- Emails:
  - z5419252@unsw.edu.au
  - cs1521@cse.unsw.edu.au
- Ask questions during the lab
- Help sessions (coming soon)



What is COMP1521

- Follows from COMP1511
- **Lower-level** programming
  - How does your computer know how to run your code?
  - How are different types of variables stored in memory?
  - How do emojis exist 🤯 (among other things)?
  - How do we read and write from files?
  - How do computers multitask?
  - …

Kahoot!

Memory

Where is each variable located in memory? Where are the strings located?

```c
#include <stdio.h>

// global variable
char *s1 = "abc";

int main(void) {
    // s2 is local to the main function
    char *s2 = "def";
    foo();
}

int foo(void) {
    int a;
    return 42;
}
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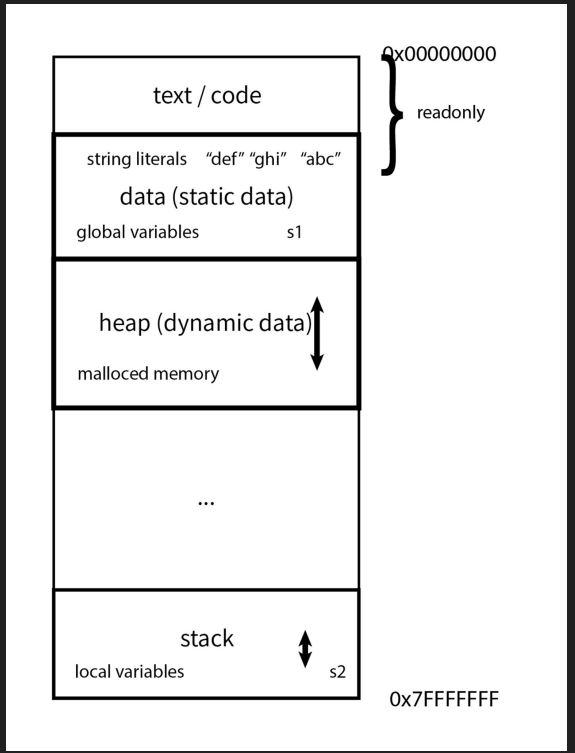

C Revision

- Pointers & dereferencing
- Strings
- Command line arguments

C Revision

- For loops??

Recursion

- What is recursion? When is it useful?

1. Base case(s)
2. Recursive step

Man Pages

- You will see **a lot** of built-in C functions.
  - printf()
  - scanf()
  - fgetc()
  - fgets()
  - …
- Very helpful in labs, assignments and beyond
- Use for this week's lab!

MIPS

- **mipsy**: MIPS emulator that allows you to run MIPS assembly code on any computer
  - Run with **‘1521 mipsy**’
- **mipsy_web**: web-based version of mipsy
  - https://cs1521.web.cse.unsw.edu.au/mispy/

Lab Time