Welcome!

COMP1511 18s1
Programming Fundamentals

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─ **Lecture 7** ─
Unit Testing, Arrays + Functions

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Before we begin…

introduce yourself to the person sitting next to you

why did they decide to study **computing**?

Overview

after this lecture, you should be able to…

understand the basics of **unit testing** using **asserts**

understand the basics of **designing a solution** to a problem

have a rough understanding of **Assignment 1**

understand more about passing **parameters** into **functions**

write programs using **arrays** to solve simple problems

(**note**: you shouldn't be able to do all of these immediately after watching this lecture. however, this lecture should (hopefully!) give you the foundations you need to develop these skills. remember:

programming is like learning any other language, it takes consistent and regular practice.)

Admin

Don't panic!

lecture recordings are on WebCMS3

course **style guide** published

weekly test due tonight

don't be scared!

assignment 1 released!

don't forget about **help sessions**!

see course website for details

time2code

(assignment spec on course website)

C Requirements

if statements

functions

asserts (unit testing)

Unit Tests

"As well as testing my whole program,
I'll test each of the small parts of it."

faster and easier to check our **small units**
and then check the whole program

Testing with `assert`

```
#include <assert.h>
```

…

```
int i = 3;
assert (i == 3);

assert (doubled(3) == 6);
```

Review: Features of Functions

a function can have zero or more parameter(s)

a function can only return zero or one value(s)

* * *

a function stores a local copy of parameters passed to it

the original values of variables remain unaltered

parameters received by the function,
and local variables created by the function,
are all **discarded** when the function returns

Review: Function Parameters

names don't matter

order matters

Feedback?

bit.do/comp1511-feedback-week4

alternate link: https://andrewb3.typeform.com/to/WrAhfV