

# SOFTENG 370 Tutorial 1

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# Welcome back

Hope everyone had a good break! This week and next week's tutorial are remote on Zoom again. We'll see about the weeks after that.

Check that the recording is on now.

# Plan

- 1 Assignment 2
- 2 Python
- 3 Q&A

# Assignment 2

- Theme: file systems
- Based on a Python binding of `libfuse`, a library which allows for filesystems to be defined in user space (see lectures)
- 3 parts:
  - Part 1: play around with the provided code and answer some questions
  - Part 2: have a look at how the memory-based file system (`memory.py`) works and answer more questions (actually just 1 question)
  - Part 3: make your own file system!

A bit different to Java, but shouldn't be too hard to pick up:

- No semicolons
- Python has lists and dictionaries built in
- Classes can have multiple inheritance
- Spaces and stuff matter
- Let's take a look at some of the assignment code to explore some of the differences

## os module

- Python's `os` module (`import os`) has a few different low-level helpers which you will need in Part 3.
- `os.open`, `os.mkdir`, `os.mknod`, `os.path.join`, ...
- Many of them map directly to Linux system calls (so you can check the man page: `man 2 mknod`, `man 2 open`, etc...)
- These functions (and more) may be needed to implement your file system.
- Unsure? Check out the docs:  
<https://docs.python.org/3/library/os.html>.

# Questions?

- Questions on the assignment or on course content from this week?
- Otherwise, see you next week. Next week will be more on A2.