

# Operating Systems

CMPT 424

## -Lab 7

Goals

### Executing many programs in memory

This approximately one-hour active learning exercise will help you make progress on the practical aspects of developing your operating system.

Instructions

1. If your memory is implemented properly and your context switching is working properly, then executing many programs in memory at once should be working just fine.
2. You and I both know that this is not the case. So here are some test programs (below) to help you debug.
3. Add the rest of the features as specified in your Issues and *iProject 3*.
4. Test. (You know this by now. Keep doing it.)
5. Read chapters 5.1.2 and 5.1.3 in the 8<sup>th</sup> edition of our text again. Read all of chapter 5 if you have not already done so. Even if you have already read it, read it again. It's probably my favorite chapter in our book. It's really good.
6. Read chapters 5.6.2 and 5.6.3 as well. Cool stuff.

Questions

1. Matt Smith: a great Doctor, or the greatest Doctor? Bonus: What about Jodie?

Resources

- Test programs:

```
// a0a1a2adone
A9 00 8D 7B 00 A9 00 8D 7B 00 A9 00 8D 7C 00 A9 00 8D 7C 00 A9 01 8D 7A 00 A2 00 EC 7A 00 D0 39 A0 7D A2
02 FF AC 7B 00 A2 01 FF AD 7B 00 8D 7A 00 A9 01 6D 7A 00 8D 7B 00 A9 03 AE 7B 00 8D 7A 00 A9 00 EC 7A 00
D0 02 A9 01 8D 7A 00 A2 01 EC 7A 00 D0 05 A9 01 8D 7C 00 A9 00 AE 7C 00 8D 7A 00 A9 00 EC 7A 00 D0 02 A9
01 8D 7A 00 A2 00 EC 7A 00 D0 AC A0 7F A2 02 FF 00 00 00 00 61 00 61 64 6F 6E 65 00

// inner1 inner2 outer1 inner1 inner2 outer2 inner1 inner2 outer3
A9 00 8D EC 00 A9 00 8D EC 00 A9 00 8D ED 00 A9 00 8D ED 00 A9 00 8D EE 00 A9 00 8D EF 00 AD ED 00 8D FF
00 AE FF 00 A9 00 8D FF 00 EC FF 00 D0 BA AD EC 00 8D FF 00 A9 01 6D FF 00 8D EC 00 AD EC 00 8D FF 00 AE FF
00 A9 03 8D FF 00 EC FF 00 D0 05 A9 01 8D ED 00 A9 00 8D EE 00 A9 00 8D EF 00 AD EF 00 8D FF 00 AE FF 00 A9
00 8D FF 00 EC FF 00 D0 49 AD EE 00 8D FF 00 A9 01 6D FF 00 8D EE 00 AD EE 00 8D FF 00 AE FF 00 A9 02 8D FF
00 EC FF 00 D0 05 A9 01 8D EF 00 A9 F8 8D FF 00 A2 02 AC FF 00 FF AD EE 00 A2 01 8D FF 00 AC FF 00 FF A9 00
8D FF 00 A2 01 EC FF 00 D0 A4 A9 F1 8D FF 00 A2 02 AC FF 00 FF AD EC 00 A2 01 8D FF 00 AC FF 00 FF A9 EE 8D
FF 00 A2 02 AC FF 00 FF A9 00 8D FF 00 A2 01 EC FF 00 D0 33 00 00 00 20 20 00 20 6F 75 74 65 72 00 20 69 6E
6E 65 72 00 00
```

Grading

Your work on this lab will contribute to your grade for *iProject3*.

Submitting

Commit your work to your **private** GitHub account in an appropriately-named folder. Make sure to tag your commit messages with the Issue number they address.