Sistemas Informáticos (Computer Systems)  
Unit 03. Activities 01

short line

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# Exercise 01

Try to think between those concepts and discuss them in forum:

1. In a system with “Programmed I/O”, which process state/s are not necessary?
2. In a system with two processors, which process state/s should be added?

# Exercise 02

Investigate for Windows and Linux what is the best configuration of virtual memory and why. Be careful, there are a lot of old explanations in Internet that are wrong. Discuss your conclusion in the forum.

If you want to know more about this topic, those articles could be useful:

* Part 1: <https://haydenjames.io/linux-performance-almost-always-add-swap-space/>
* Part 2: <https://haydenjames.io/linux-performance-almost-always-add-swap-part2-zram/>

# Exercise 03

If you have 3 processes P1, P2, P3 and P4:

| **Process** | **Arriving time** | **CPU** |
| --- | --- | --- |
| P1 | 1 | 7 |
| P2 | 4 | 5 |
| P3 | 3 | 1 |
| P4 | 2 | 4 |

Show the result if “short term scheduler algorithm” is:

1. FIFO
2. SRTF
3. Round robin with Quantum=1
4. Round robin with Quantum=3