oblig1.md 19/02/2020

Oblig 1

Victor Nascimento Bakke

victonba@ifi.uio.no

Exercise 1 - Barriers

Source file: ex1 barrier.m

Output file: ex1_barrier.txt

The default configuration for docker, in which I run the code I've written for this entire oblig, has 2 processing cores available. This is reflected in the output of the program.

Two of the processes are able to enter and then leave the barrier at a time due to there being 2 cores. If we want to ensure all processes have time to enter the barrier before any process start leaving, we will technically have to have another barrier for the "leaving" action.

Exercise 2 - Producer/Consumer

Source file: ex2_producer_consumer.m

Output file: ex2_producer_consumer.txt

Exercise 3 - Kilroy timing: local and on Planetlab

Source file: ex3_kilroy.m

Output file: ex3 kilroy.txt

At the time I tried to do the first part of this exercise, only 2 of the 4 machines as IFI that I know of were available (jordin and vatn. kennen and ashe were down), so I started the script on vatn, and had two emerald machines on jordin (referred to as jordin 1 and jordin 2 in the output file).

I was unable to make the script return home on IFI's machines, as the home node turned unavailable when reaching the final node. Unsure of the reasons for this. As such, to get any kind of sensible output from the script, I adapted it to optionally write its final output on whichever node it ended up on.

For the planetlab part of this exercise, I chose the following nodes:

- ple1.cesnet.cz (Prague, Czech Republic)
- cse-white.cse.chalmers.se (Gotenburg, Sweden)
- kulcha.mimuw.edu.pl (Warsaw, Poland)
- planetlab1.xeno.cl.cam.ac.uk (Cambridge, United Kingdom)

For no particular reason, I chose kulcha.mimuw.edu.pl to host my program.