

Forum:[Hack Forums](#)

Thread: [processes and semaphores order of excecution valid?](#)

georgeziozas - December 20, 2020, 1:07 pm

?Hey there,

Process A:

```
Code down(s1);
up(s2);
```

Process B:

```
Code down(s2);
down(s2);
up(s1);
up(s2);
Semaphores initilization:
```

Code s1=2 , s2=0

If we consider the order of execution:

?1->?2->?1->?3->?2 meaning A1 starts first and finishes then follow B1 with the same pattern etc.
Then the code is valid and this order of execution can be achieved, at least from my knowledge.

But, What if we have this order of execution?

?1->?2->?1->?2->?3

In my opinion and the way I solve it, is that it is not possible at all because B2 will be paused and won't be able to finish (cause S2 will be -1).

Am I correct ? or I am missing crucial information on semaphores inner workings?

Thanks in advance.?

SIM-3364521 - January 2, 2021, 11:31 pm

Yes, you are correct. In this order there would occur a problem:

A1->A2->B1->B3->A3

if you go through it step by step:

```
initial values: S1=2, S2=0
after A1:      S1=1, S2=1
after A2:      S1=0, S2=2
after B1:      S1=1, S2=1
```

so in B2 it comes to a stop at the 2nd down(s2), to resolve this another A1 would need to be called.

I would suggest you to write a small program that allows you to model different execution flows, that way you can let the computer test

the case for you to validate it :)

Juice - *January 18, 2021, 11:14 pm*

Use the down command bro that should work