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CMSC 421
Fork() Assignment

Part 2

Output:

parent pid = 4902
fork1 in parent process waiting for child ...
fork1 retVal == 0 in child process pid = 4903
child sleeping ...
finished sleeping
parent pid = 4903
fork2 in parent process waiting for child ...
fork2 retVal == 0 in child process pid = 4905
child sleeping ...
finished sleeping
parent pid = 4905
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 4906
child sleeping ...
finished sleeping
wait() finished in parent process
wait() finished in parent process

parent pid = 4903
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 4907
child sleeping ...
finished sleeping
wait() finished in parent process
wait() finished in parent process

parent pid = 4902
fork2 in parent process waiting for child ...
fork2 retVal == 0 in child process pid = 4910
child sleeping ...
finished sleeping
parent pid = 4910
fork3 in parent process waiting for child ...

fork3 retVal == 0 in child process pid = 4912
child sleeping ...
finished sleeping
wait() finished in parent process
wait() finished in parent process

parent pid = 4902
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 4913
child sleeping ...
finished sleeping
wait() finished in parent process

Part 3

Output:

parent pid = 5510
fork1 in parent process waiting for child ...
fork1 retVal == 0 in child process pid = 5511
child sleeping ...
finished sleeping
parent pid = 5511
fork2 in parent process waiting for child ...
fork2 retVal == 0 in child process pid = 5512
child sleeping ...
finished sleeping
parent pid = 5512
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 5513
child sleeping ...
finished sleeping
parent pid = 5513
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5516
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process
parent pid = 5512

fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5518
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process

parent pid = 5511
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 5519
child sleeping ...
finished sleeping
parent pid = 5519
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5522
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process
parent pid = 5511
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5524
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process

parent pid = 5510
fork2 in parent process waiting for child ...
fork2 retVal == 0 in child process pid = 5525
child sleeping ...
finished sleeping
parent pid = 5525
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 5526
child sleeping ...
finished sleeping

parent pid = 5526
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5529
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process
parent pid = 5525
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5531
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process

parent pid = 5510
fork3 in parent process waiting for child ...
fork3 retVal == 0 in child process pid = 5532
child sleeping ...
finished sleeping
parent pid = 5532
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5535
child sleeping ...
finished sleeping
wait() finished in parent process

wait() finished in parent process
parent pid = 5510
fork4 in parent process waiting for child ...
fork4 retVal == 0 in child process pid = 5537
child sleeping ...
finished sleeping
wait() finished in parent process

Description:

I decided that I wanted to experiment with the sleep function because I had never heard of it before this assignment. I expected that decreasing the sleep function's parameter from 5 to 2

would cause less of a wait time between the fork functions. I expected that increasing the sleep function's parameter from 5 to 8 would cause a greater wait time between the fork functions. The actual results of the experiment aligned with my expectations. Additionally, I also experimented by adding a 4th fork. I expected that there would be 16 different Pids. The actual results of the experiment aligned with my expectations. The output of my experiment is shown above.