Processes & Threads

Week 04 – Lab

Exercise 1

- Create a program that declares a variable *n*, forks a new process and prints “Hello from parent [PID - n]” and “Hello from child [PID - n]” from parent and child processes respectively. Run it 10 times and explain the output
- Hint: to run it N times you can write a shell script

Exercise 2

- Write a program that calls fork() in a loop 3 times and sleeps for 5 seconds. Run the program in background and run **pstree** command several times. Look at the output and tell how many processes are created. Explain the result
- Change the program so that it would call fork() 5 times. See how the result changes

Exercise 3

- Write your own simplistic shell. It should read user input and be able to run a command without parameters, such as pwd, ls, top, pstree and so on
- Hint: use *man system*

Exercise 4

- Extend your previous code to handle commands with parameters and running processes in background
- Hint: use man fork and man execve