Technological Communication

TASK 1

1.a. Define the following briefly:
Process
Daemon
System call
Client & Server
Peer to Peer
1.b. List and briefly explain the different types of Unix system calls for IPC.
1.c. Explain for at least 2 kernel architectures, how IPC is handled.

TASK 2

2.a. Define the various methods for Inter Process communication and provide advantages and disadvantages respectively.
2.b. What IPC facilities are currently on your system? Show the current activity in them.
2.c. Create two separate programs which implements inter process communication (between parent process and child process) using shared memory and pipes, using any programming language of your choice.

Task 2.c will be submitted as a video demo showing (a) Your parent and child process code; (b) The steps for compiling the code; (c) Your successfully running program

TASK 3

This task will be done in a team of 2.
3.a. Define the following:
bind shell [use nc, & powershell to show a practical example with your teammate]
reverse shell [use nc, ncat, socat, powershell & powercat to show a practical example with your teammate]
3.b. List and give short explanations on the shell types in linux.
3.c. What is netcat’s gaping security hole? Recreate and explain it.