

Systems Software

Lab Work Week 5

IPC and Pipes

Part 1:

Using the pipe and fork commands, create a parent process that can send a message to a child.

Part 2:

Using the pipe and fork commands, create a child process that can send a message to its parent.

Part 3:

Using the popen command, recreate the examples from Part 1 and 2.

Part 4:

Using the pipe and fork commands, create a program that uses the pipe command for:

```
ls -al | awk '{ print $3 }' | sort -u
```

Part 5:

Create two processes that are not related that can communicate with each other. (Hint use FIFO Named Pipe)

Part 6:

Create a simple process that runs infinitely named myProcess

Create a program using pipes to replicate the following to find the process id.

```
ps aux | grep myProcess | grep -v grep | awk '{print $2}'
```

Can we create a program to automate the killing of the process “myProcess”?