

Programming Tools II LAB

ASSIGNMENT WEEK # 3

1. Using **pipe()** system call to send a string of characters from parent process to child process. Child process will read the string and print the string in child process itself.

2. Redirecting Output: “ls -l | sort”

A. Using **pipe()** and **dup()**, write a program where child process will execute “ls -l” and the output will act as input for parent process which will execute “sort” on it.

B. Perform program A using **dup2()** instead of **dup()**. Accept the two commands i.e., **ls -l** and **sort** as command line arguments.

3. Write a program to create your own **man(manual)** utility – **myMan.c**, using system calls fork, exec, pipe, dup/dup2. In this program, the parent process communicates with the child process using a pipe. The parent process accepts the unix command/system calls (eg., ls, cat, ps, fork etc.) for which the man page is desired, as command line argument. This argument is passed to the child process through the pipe and the child process invokes a new xterm terminal displaying the man page of the given command.