Assignment 7b

→ **Aim:** Inter process communication in Linux using FIFO.

→ **Objectives:**

Implementation of Full duplex communication between 2 independent processes. First process accepts sentences & writes on one pipe to be read by second process & 2nd process counts the no. of words & lines, writes this o/p to a text file & the contents on second pipe to be read by first process & display on stdout.

→ **Theory:**

A] **FIFOs:**

- As first in first out [FIFO] file is a pipe that has a name in the filesystem. Any process can open or close the FIFO. The processes either end of the pipe need not be related to each other. FIFOs are also called named pipes.
- You can make a fifo using mkfifo command. Specify the path to the FIFO on the command line.

- The first arguement is the path at which to create the FIFO; the second parameter specifies the pipe's owner, group & world permissions.
- Access a FIFO just like an ordinary file. To communicate, one must open the file for reading & writing using functions/system calls.

Ex.
```
int fd = open(fifo_path, O_WRONLY);
write(fd, data, data_length);
close(fd);
```

→ Conclusion:

Topics Covered:

1. FIFO principle
2. FIFO files.
3. IPC using FIFO files.