**CN Assignments 8-1-2022**

**1.** **PC** (Parent Child) – **Two way** : Parent Process **P**, child process **P'** two way using two pipes.

* Proces **P** reads data (string of characters) from keyboard and sends to P'.
* Then P' reads from pipe and display onto the screen.
* Now P' reads data from keyboard and sends to P.
* The process P reads from pipe and display onto the screen.
* Continue the communication till null data input.

**2.** **P1 P2** – **Two way:** Parent Process **P1**, child process **P2** (created by P1 using fork() and exec() ) two way using two pipes.

* Proces **P1** reads data (string of characters) from keyboard and sends to **P2**.
* Then P2 reads and displays onto the screen.
* Now P2 reads data from keyboard and sends to P1.
* The process P1 reads and displays onto the screen.

(use dup2() and getback the 0(keyboard) and 1(screen) in the process P2).

* P2 has to display first output as “ I am process P2 ”.
* Continue the communication till null data input.

**3.** **P1 P2 P3** – **Two way:** Parent Process **P1**, child process **P2** ( created by P1 using fork() and exec() ) , grand child **P3** ( created by P2 using fork() and exec() ).

* Proces **P1** reads data (string of characters) from keyboard and sends to **P2**.
* Then P2 reads and just forwards the data to P3.
* Then P3 reads and displays data onto the screen.
* Now P3 reads data from keyboard and sends to P2.
* Then P2 reads and just forwards the data to P1.
* The process P1 reads and displays onto the screen.
* P2 has to display first output as “ I am process P2 ”.
* P3 has to display first output as “ I am process P3 ”.
* Continue the communication till null data input.

Google form link for submission:

<https://forms.gle/xMveUjZRdGUzXQ779>