AN OVERVIEW:

The 2nd Question of the Assignment Contains IPC, i.e., Inter-Process Communication. The Question entailed Using FIFO, Shared Memory, and Sockets to establish contact between different Processes. For this, we send and receive 50 Randomly generated strings one at a time.

Detailed Explanation:

For the 1st Part: We created 2 FIFO pipes, one for reading and one for writing on both ends. The first Pipe of Process P1 writes the first 5 Strings, and after receiving them, Process P2 reads them and sends back the max ID using another FIFO.

For the 2nd Part: We Created a Socket through which 2 processes were connected. Then as in the same process, 5 strings and the max IDS were exchanged one at a time. This process was repeated until all Strings were passed to Process P2.

For the 3rd Part: We Created Shared memory where both processes are continuously writing. To avoid the condition of racing, I have used a while condition which suspends the other process from writing to the same shared memory at the same time.