Interprocess Communication

In this Question we have to Communicate between 2 Processes
The first program P1 needs to generate an array of 50 random strings (of characters) of fixed length each. P1 then sends a group of five consecutive elements of the array of strings to P2 along with the ID's of the strings, where the ID is the index of the array corresponding to the string. The second program P2 needs to accept the received strings,and send back the highest ID received back to P1 to acknowledge the strings received.

So we have to communicate between these 2 Processes with 3 techniques
1)FIFOs: A *pipe* is a mechanism for interprocess communication; data written to the pipe by one process can be read by another process. The data is handled in a first-in, first-out (FIFO) order. The pipe has no name; it is created for one use and both ends must be inherited from the single process which created the pipe.

We used makefifo function to create a pipe.

2)Sockets:

Sockets provide point-to-point, two-way communication between two processes. Sockets are a basic component of interprocess and intersystem communication. A socket is an endpoint of communication to which a name can be bound. It has a type and one or more associated processes.

The client Socket and Server Socket are used to communicate.

3)Shared memory

Shared memory is a concept where two or more processes can access the common memory. And communication is done via this shared memory where changes made by one process can be viewed by another process.

In this we used these functions:-
ftok(): use to generate a unique key.

smhget():*returns an identifier for the shared memory segment.*

shmat():
shmdt():program should detach itself from it using shmdt().

shmctl():when you detach from shared memory,it is not destroyed. So, to destroy shmctl() is used.