

## Ex4 Echo Server

in this exercise you will implement an echo server, i.e., the server should send to all the clients whatever it gets from some of the clients. For example, if a client sends “abc”, the server reply “abc” to all the clients. You do not have to deal with synchronization in this exercise.

The server should create a TCP socket and it should be implemented using select system call (and without threads).

The server should create the socket, bind itself to its local ip (INADDR\_ANY) and to a port that is given as a parameter to the program.

Then it should call listen and enter to an infinite loop, where it calls select.

At the beginning, the only file descriptor to check is the one that was returned by Socket(). Whenever there is something to read from that fd, it means that some client called connect so the server should call accept and add the new fd, returned from accept to the set.

If there is something to read from a fd, which is not the one that was returned from socket(), the server should read the data and write it back to the client. Note that select gives read notification also when there is only the EOF to read from an fd so you can know when to close the file descriptors and clear it from the set.