

# ReadME

## Assignment #3 plain-text file

### Group members:

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### Server section:

- Server execution:

- compile:

```
- gcc server.c -o serverBinary
```

- ./serverBinary <port>

```
- ./serverBinary 9999
```

- Server functionality:
  - The server read a line from The client and return it As capital letter characters.

### Client Section:

- Client execution:

- compile:

```
- gcc client.c -o clientBinary
```

- `./clientBinary <IP> <PORT> <Wait-Time> <File>`

```
./clientBinary 127.0.0.1 9999
```

- Client Functionality:
  - The Client read a line from the User input(stdin) and sent it to the client to receive the upper case of its character.
  - The client uses the select Function to multiplex and read from two descriptors (stdin, Socket), and never stays blocking at nether of them.
  - And also uses the SHUTDOWN function for termination to do a full termination.

## Sample Run:

```
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ gcc server.c -o server
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ gcc client.c -o client
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./clienttest 127.0.0.1 9999
[+]Client Socket is created.
[+]Connected to Server.
make it upper case please.
The capital version of your string: MAKE IT UPPER CASE PLEASE.

maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./servertest 9999
Hello there , I'm maliktawfiq!
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./servertest 9999
[+]Server Socket is created.
[+]Bind to port 9999
[+]Listening...
[+]Connection accepted from 127.0.0.1:42456
[+]Word received: make it upper case please.
Capital version sent: MAKE IT UPPER CASE PLEASE.
```

## Server crashing Run:

```
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./clienttest 127.0.0.1 9998
[+]Client Socket is created.
[+]Connected to Server.
Please give me the capital version of this line
The capital version of your string: PLEASE GIVE ME THE CAPITAL VERSION OF THIS LINE
[+]Server Crashed...

maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./servertest 9998
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $ ./servertest 9998
[+]Server Socket is created.
[+]Bind to port 9998
[+]Listening...
[+]Connection accepted from 127.0.0.1:51152
[+]Word received: Please give me the capital version of this line
Capital version sent: PLEASE GIVE ME THE CAPITAL VERSION OF THIS LINE
^C
maliktawfiq@maliktawfiq:~/Networkprogramming/assignment3 $
```