

## Implement simple file server using sockets

### Output:-

- Server contains two files named file1.txt and file2.txt

- File1.txt content:

A screenshot of a text editor window titled 'file1.txt' showing the following content:

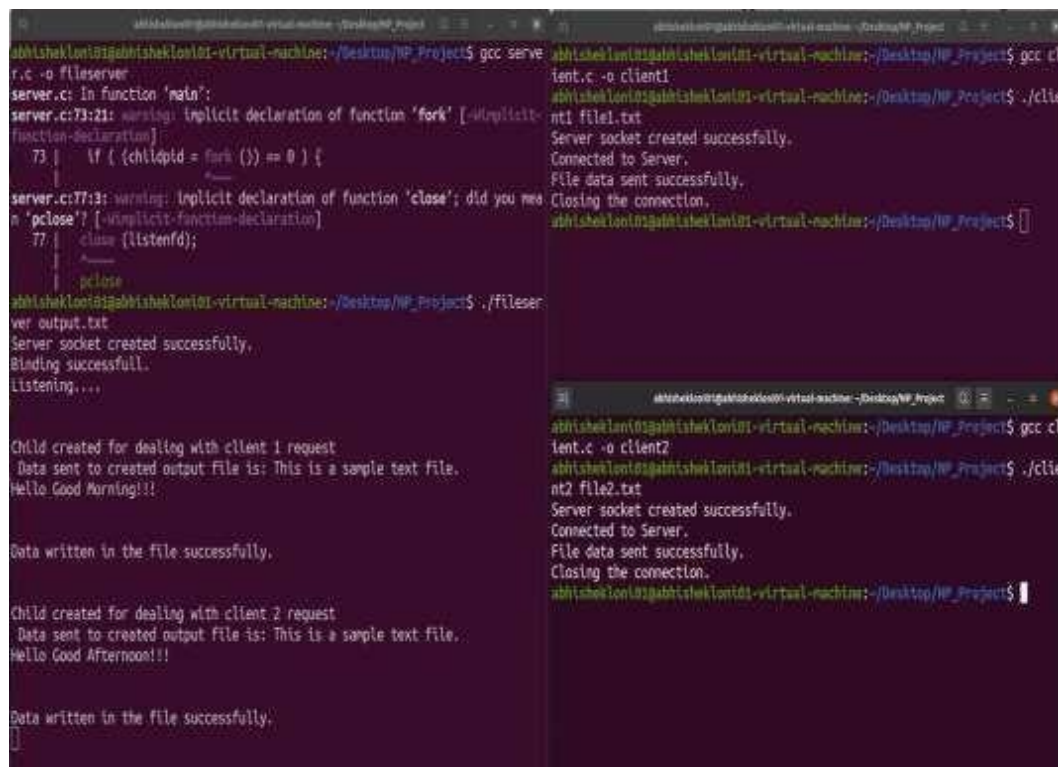
```
1 This is a sample text file.
2 Hello Good Morning!!!
3
```

- File2.txt content:

A screenshot of a text editor window titled 'file2.txt' showing the following content:

```
1 This is a sample text file.
2 Hello Good Afternoon!!!
3
```

### ➤ Communication Between File server and two clients:

A screenshot of a terminal window showing the execution of a file server and two clients. The server is compiled and run, then listens for connections. Two clients are run, each connecting to the server and sending a file name. The server responds by sending the file data to the client's output file.

```
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project
r.c -o fileserver
server.c: In function 'main':
server.c:73:21: warning: implicit declaration of function 'fork' [-Wimplicit-function-declaration]
   73 |     if ( (chldpid = fork ()) == 0 ) {
       |             ^
server.c:77:13: warning: implicit declaration of function 'close'; did you mean 'pclose'? [-Wimplicit-function-declaration]
   77 |     close (listenfd);
       |     ^
   77 |     pclose
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$ ./fileserver
Server socket created successfully.
Binding successful.
Listening....

Child created for dealing with client 1 request
Data sent to created output File is: This is a sample text file.
Hello Good Morning!!!

Data written in the File successfully.

Child created for dealing with client 2 request
Data sent to created output file is: This is a sample text file.
Hello Good Afternoon!!!

Data written in the File successfully.

abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$ gcc client.c -o client1
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$ ./client1 file1.txt
Server socket created successfully.
Connected to Server.
File data sent successfully.
Closing the connection.
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$

abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$ gcc client.c -o client2
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$ ./client2 file2.txt
Server socket created successfully.
Connected to Server.
File data sent successfully.
Closing the connection.
abhishek@abhishek-lon01-virtual-machine: ~/Desktop/NP_Project$
```

- **Client1 appends its message into output.txt file from Server.**



A screenshot of a text editor window titled "output.txt" with a path of "~/Desktop/MP\_Project". The window contains three lines of text: "1 This is a sample text file.", "2 Hello Good Morning!!!", and "3 |" where the cursor is positioned at the end of the third line.

- **Client2 appends its message into output.txt file from Server.**



A screenshot of a text editor window titled "output.txt" with a path of "~/Desktop/MP\_Project". The window contains six lines of text: "1 This is a sample text file.", "2 Hello Good Morning!!!", "3 |", "4 This is a sample text file.", "5 Hello Good Afternoon!!!", and "6 |" where the cursor is positioned at the end of the sixth line.