

Report

Usage: ./project2 [filename]

Basic Features

A. Open a socket named telnetSocket

```
telnetSocket = socket(AF_INET, SOCK_STREAM,0);
```

B. Set telnetSocket

```
int port=23;
server.sin_addr.s_addr = inet_addr("140.112.172.11");
server.sin_family = AF_INET;
server.sin_port = htons(port);
```

C. Connect telnetSocket to the port 23 and the IP address of PTT 140.112.172.11

```
if(connect(telnetSocket,(struct sockaddr*)&server, sizeof(server))<0){
    perror("connect");
    return 1;
}
```

D. Implement basic features by writing the ascii code or commands (read from file) to the telnetSocket

a. Log in

```
write(telnetSocket, ID,strlen(ID));
write(telnetSocket, "\r\n",2);
write(telnetSocket, PASS,strlen(PASS));
write(telnetSocket, "\r\n",2);
write(telnetSocket, "\x003" ,1); // Press ctrl+c to skip the advertisement
sleep(5);
```

b. Delete repeated connection

```
write(telnetSocket, "\x003" ,1); // Press ctrl+c to skip the advertisement
write(telnetSocket,"y\r\n",3);
sleep(10);
```

c. Press ctrl+c to skip some advertisements

```
write(telnetSocket, "\x003" ,1);
sleep(2);
```

d. Press s and enter Board

```
write(telnetSocket,"s",1);
write(telnetSocket, BOARD,strlen(BOARD));
write(telnetSocket,"\r\n",2);
write(telnetSocket, "\x003" ,1); // Press ctrl+c to skip the advertisement
write(telnetSocket, "\x003" ,1); // Press ctrl+c to skip the advertisement
```

e. Press ctrl+p and enter the title

```
write(telnetSocket, "\x010",1); //Press ctrl+p
    write(telnetSocket, "\r\n",2); //choose types of text (by default, just skip it)
    write(telnetSocket, P,strlen(P)); //enter title
    write(telnetSocket, "\r\n",2);
```

f. Enter contents

```
write(telnetSocket,CONTENT,strlen(CONTENT));
```

g. Save and post

```
write(telnetSocket, "\x018",1); //Press ctrl+x
sleep(1);
write(telnetSocket, "s\r\n",3); //Press s to save and post the contents
write(telnetSocket, "q",1); //Press several q to return the starting page
write(telnetSocket, "q",1);
write(telnetSocket, "q",1);
write(telnetSocket, "q",1);
write(telnetSocket, "q",1);
write(telnetSocket, "q",1);
write(telnetSocket, "q",1);
```

h. Exit

Repeat the procedures d-g until read <EXIT> from the file

```
write(telnetSocket, "g",1); //Press g to exit
sleep(3);
write(telnetSocket, "\r\n",2);
write(telnetSocket, "y\r\n",3); //Enter y to ensure exit
```

E. Close telnetSocket

```
close(telnetSocket);
```

F. Bonus features

In this part, I add the following feature:

In each line of contents, users can color a word (including red, green, yellow, blue, purple, light blue, white, and black), a sentence or a sequence of letters by putting a color (including COLOR_R, COLOR_G, COLOR_Y, COLOR_L, COLOR_P, COLOR_C, COLOR_W, and COLOR_B) tag in desired position in each line of contents.

For the part of codes:

Take color red for instance,

```
write(telnetSocket, "\x016",1); //Press ctrl+v to enter image-and-text mode
    write(telnetSocket, "\x003",1); //Press ctrl+c to choose color
    write(telnetSocket, "1r\r\n",4); //Enter brightness(1) and color(r)
    write(telnetSocket,CONTENT,strlen(CONTENT));
```

For the part of implemetation:

In the text file:

<CONTENT>

it is a <COLOR_Y>sentence</COLOR_Y> haha.

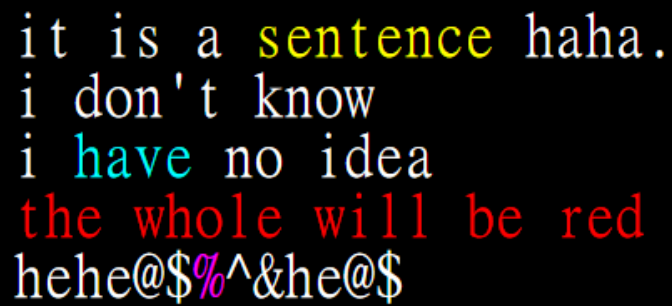
i don't know

i <COLOR_C>have</COLOR_C> no idea

<COLOR_R>the whole will be red</COLOR_R>

hehe@\$<COLOR_P>%</COLOR_P>^&</CONTENT>

In PTT:



it is a sentence haha.
i don't know
i have no idea
the whole will be red
hehe@\$%^&he@\$