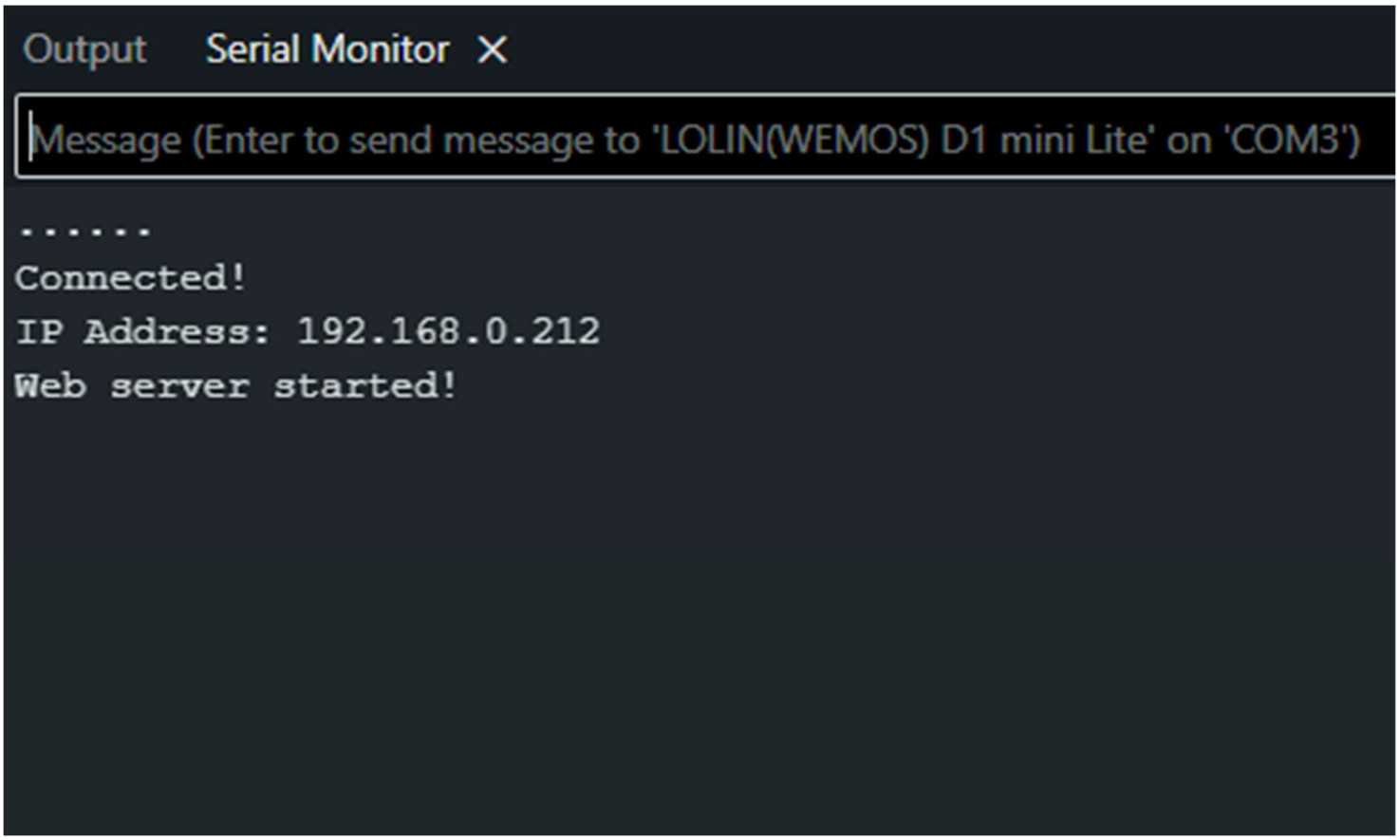
Practical-6: Get status of bulb at a remote place through LAN through Web page

```
#include <ESP8266WiFi.h>
#include <ESP8266WebServer.h>
const char* ssid="ENTC04";
const char* password="$inhgad@2122";
ESP8266WebServer server(80);
#define S1 D1
#define S2 D2
bool loggedIn=false;
void setup(){
  Serial.begin(115200);
  pinMode(S1,OUTPUT); pinMode(S2,OUTPUT);
  digitalWrite(S1,HIGH); digitalWrite(S2,HIGH);
  WiFi.begin(ssid,password);
  Serial.print("Connecting to WiFi");
  while(WiFi.status()!=WL_CONNECTED){delay(500);Serial.print(".");}
  Serial.println("\nConnected!");
  Serial.print("IP Address: ");
  Serial.println(WiFi.localIP());
  server.on("/",[](){
    if(!loggedIn){
      server.send(200,"text/html",
      "<html><body style='text-align:center;background:#D6EAF8'>"
      "<h2>Login</h2>"
      "<form action='/login' method='POST'>"
      "Username:<input name='u'><br><br>"
      "Password:<input type='password' name='p'><br><br>"
      "<input type='submit' value='Login'>"
      "</form>"
      "</body></html>");
    }
    else{
      server.send(200,"text/html",
      "<html><body style='text-align:center;background:#A9DFBF'>"
      "<h2>Home Automation Control</h2>"
      "<h3>Switch 1:</h3>"
      "<a href='/on1'><button>ON</button></a> "
      "<a href='/off1'><button>OFF</button></a><br><br>"
      "<h3>Switch 2:</h3>"
      "<a href='/on2'><button>ON</button></a> "
      "<a href='/off2'><button>OFF</button></a><br><br>"
      "<a href='/logout'><button>Logout</button></a>"
      "</body></html>");
    }
  });
  server.on("/login",[](){
    if(server.arg("u")=="admin" && server.arg("p")=="admin123")
      loggedIn=true;
    server.sendHeader("Location","/");
    server.send(303);
  });
  server.on("/logout",[](){
```

```
    loggedIn=false;
    server.sendHeader("Location","/");
    server.send(303);
  });
  server.on("/on1",[](){digitalWrite(S1,LOW);server.sendHeader("Location","/");
server.send(303);});
  server.on("/off1",[](){digitalWrite(S1,HIGH);server.sendHeader("Location","/"
);server.send(303);});
  server.on("/on2",[](){digitalWrite(S2,LOW);server.sendHeader("Location","/");
server.send(303);});
  server.on("/off2",[](){digitalWrite(S2,HIGH);server.sendHeader("Location","/"
);server.send(303);});
  server.begin();
  Serial.println("Web server started!");
}
void loop(){
  server.handleClient();
}
```

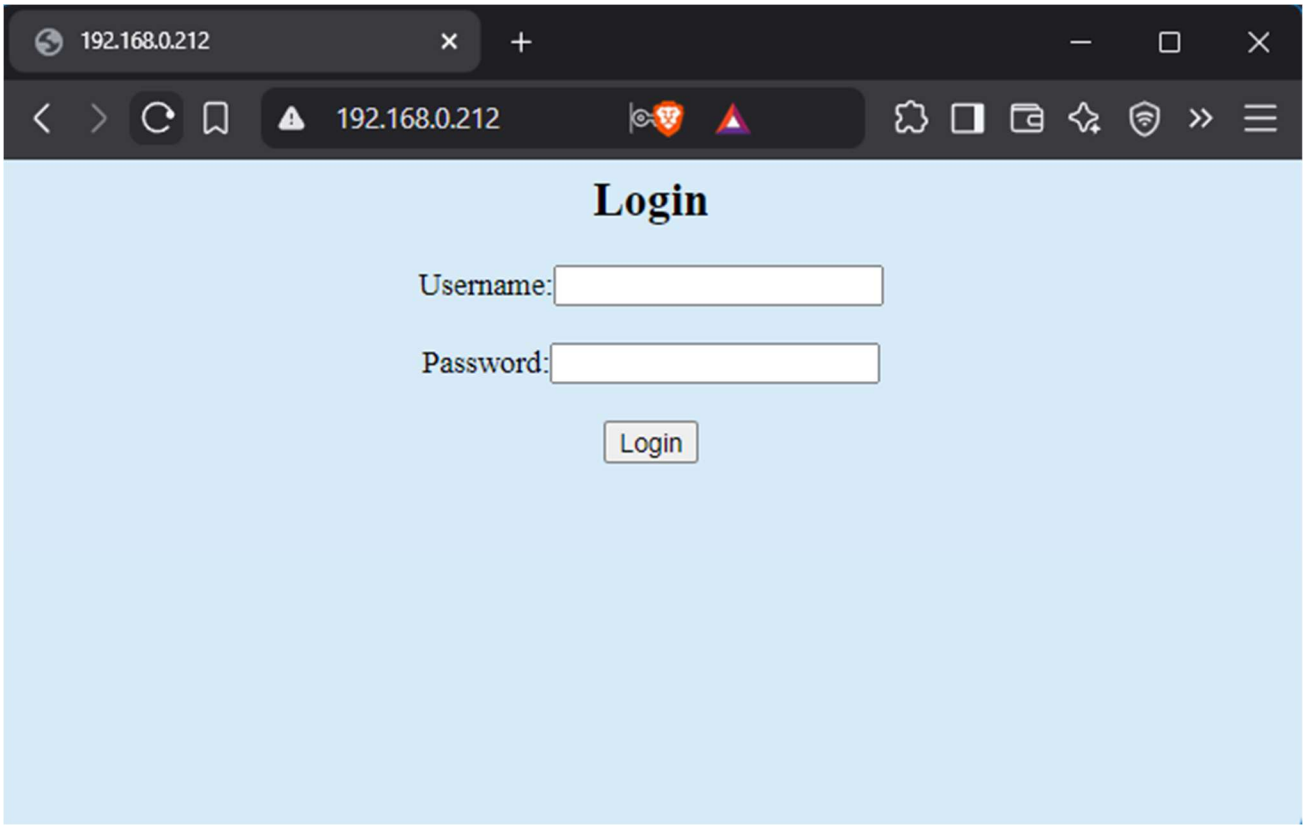
OUTPUT:

Serial Monitor-



Webpages-

1.Login Page



Control Page

Hardware Output:

Steps:

1. Connect the USB Pin from kit to PC and Bulb pin to light socket.
2. Select Board: LOLIN(WEMOS) D1 mini Lite
   PORT: COM3
3. Write the program and click ‘verify’.
4. Ones verified, click ‘upload’ and wait till program is loaded in the MCU.
5. Open Serial Monitor from “Tools” section.
6. Set Baud rate to 115200.
7. Type the IP address given in the output(On serial monitor) in any browser to launch the website.

LOGIN PASSWORD:

ID: admin Password: admin123