```
#include <ESP8266WiFi.h> // Wifi Library
#include "DHT.h" // Temperature and Humidity Sensor Library

#define DHTPIN D5     // what digital pin we're connected to
#define DHTTYPE DHT22   // DHT 22  (AM2302), AM2321
DHT dht(DHTPIN, DHTTYPE); // Initializing the DTH22 Sensor with the PIN
No
int sensor_pin = A0; //PIN for Moisture Sensor
int moisture ; //variable to store the soil moisture value
bool connected = false;

const char* ssid     = "Vodafone-33498108"; // SSID of the Network
const char* password = "vl2z5liskvbikl8"; // Password for the network

const char* host = "192.168.1.7"; // IP of the system where we will
send our data
    const int httpPort = 4445;
void setup() {
  Serial.begin(115200); // set baud rate
  dht.begin();  //initialize dht22 sensor module

//Connecting with Network...
 Serial.println();
 Serial.println();
  Serial.print("Connecting to ");
 Serial.println(ssid);

 WiFi.mode(WIFI_STA);
 WiFi.begin(ssid, password);

  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.print(".");
   }

 Serial.println("");
 Serial.println("WiFi connected");
  Serial.println("IP address: ");
Serial.println(WiFi.localIP());
```

```
}

void loop() {
 delay(5000);

//////////////////////////////Reading
Sensors//////////////////////////////////////////
 //Reading Temperature and Humidity
 String sensdata = "";
 float humid = dht.readHumidity();
 float tc = dht.readTemperature(); // Read temperature as Celsius
(the default)
 float tf = dht.readTemperature(true); // Read temperature as
Fahrenheit (isFahrenheit = true)
 // Check if any reads failed and exit early (to try again).
 if (isnan(humid) || isnan(tc) || isnan(tf)) {
  Serial.println("Failed to read from DHT sensor!");
   return;
 }
 //Reading Soil Moisture Sensor Data
moisture= analogRead(sensor_pin);
moisture = map(moisture,550,0,0,100);

sensdata = sensdata+humid+"\t"+tc+"\t"+tf+"\t"+moisture; //Creating
a String for sensor reading

//////////////////////////////Sending The values to
gateway//////////////////////////////////////////

  Serial.print("connecting to ");
  Serial.println(host);
  WiFiClient client;

    if (!client.connect(host, httpPort)) {
     Serial.println("data server connection failed");
      return;
     }else{
```

```
      Serial.println("data server connected");
       connected = true;
      }
 Serial.println("Sending sensor reading: "+sensdata);
 client.print(sensdata);
}
```