```
#include <Blynk.h>
#define BLYNK_PRINT SwSerial

#include <SoftwareSerial.h>
SoftwareSerial SwSerial(2, 3); // RX, TX

#include <BlynkSimpleStream.h>

// You should get Auth Token in the Blynk App.
// Go to the Project Settings (nut icon).

//Importando as libraries

#include <Wire.h>
#include <LiquidCrystal_I2C.h> // Using version 1.2.1
#include <DHT.h>
#define DHTPIN A1 // pino que estamos conectado
#define DHTTYPE DHT11 // DHT 11

// The LCD constructor - address shown is 0x27 - may or may not be correct for yours
// Also based on YWRobot LCM1602 IIC V1
//LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE);
LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE);
DHT dht(DHTPIN, DHTTYPE);

//chave para conexao Blynk
char auth[] = "43e4ac4183b14834bfd2a164a4fd30cb";

// Attach virtual serial terminal to Virtual Pin V1
WidgetTerminal terminal(V1);
```

```
// You can send commands from Terminal to your hardware. Just use
// the same Virtual Pin as your Terminal Widget
BLYNK_WRITE(V1)
{

//if you type "Start" into Terminal Widget
  if (String("start") == param.asStr()) {
    terminal.println("Verifique as informacoes de temperatura") ;
    terminal.println("Verifique as informacoes de CO") ;
    terminal.println("Verifique as informacoes de humidade no LCD") ;
  } else {

    // Send it back
    terminal.print("Entre com start");
    terminal.write(param.getBuffer(), param.getLength());
    terminal.println();
  }

  // Ensure everything is sent
  terminal.flush();
}

void setup()
{
  // Debug console
  SwSerial.begin(9600);

  // Blynk will work through Serial
  // Do not read or write this serial manually in your sketch
  Serial.begin(9600);
  Blynk.begin(Serial, auth);
```

```
  dht.begin();
  lcd.begin(16,2); // sixteen characters across - 2 lines
  lcd.backlight();

  // This will print Blynk Software version to the Terminal Widget when
  // your hardware gets connected to Blynk Server
  terminal.println(F("Digite start para verificar as informacoes"));
  terminal.flush();
}

BLYNK_WRITE(V5)
{
  // A leitura da temperatura e umidade pode levar 250ms!
  // O atraso do sensor pode chegar a 2 segundos.
  float h = dht.readHumidity();
  float t = dht.readTemperature();
  // testa se retorno é valido, caso contrário algo está errado.
  if (isnan(t) || isnan(h))
  {
    lcd.setCursor(0,0);
    lcd.print("DHT11 FALHOU");
  }
  else
  {
    lcd.setCursor(0,0);
    lcd.print("Temp: ");

    lcd.setCursor(8,0);
    lcd.print(t);

    lcd.setCursor(0,1);
```

```
   lcd.print("Humid: ");

   lcd.setCursor(8,1);
   lcd.print(h);
  }

  delay(2000);
  lcd.clear();

  int val;
  val=analogRead(0); //Read Gas value from analog 0
  lcd.setCursor(0,0);
  lcd.print("CO: ");//Print the value to serial port
  lcd.setCursor(8,0);
  lcd.print(val,DEC);//Print the value to serial port

  delay(2000);
  lcd.clear();
}
void loop()
{
  Blynk.run();
}
```