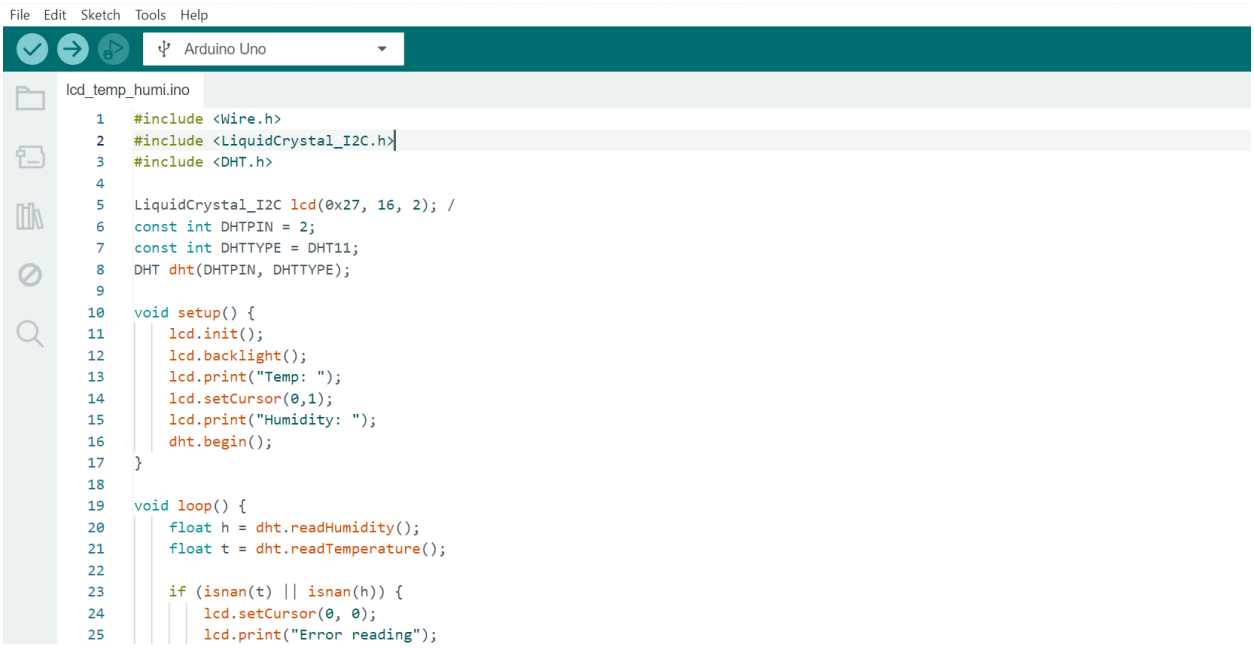
This is the demo file for assignment 5.

- First, we write code to connect sensor devices, here is temperature and humidity sensor, LCD screen.

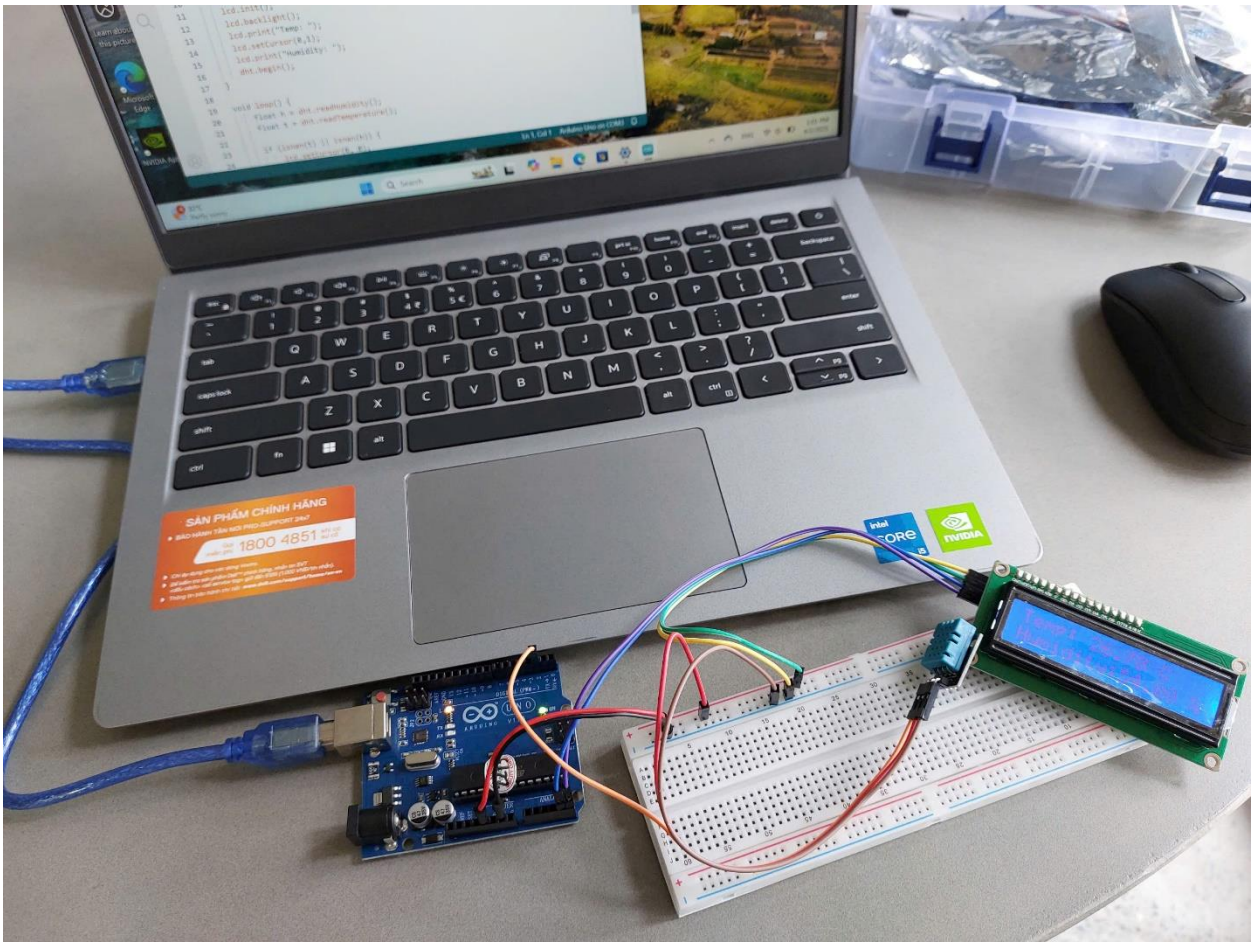



```ino
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include <DHT.h>

LiquidCrystal_I2C lcd(0x27, 16, 2); /
const int DHTPIN = 2;
const int DHTTYPE = DHT11;
DHT dht(DHTPIN, DHTTYPE);

void setup() {
    lcd.init();
    lcd.backlight();
    lcd.print("Temp: ");
    lcd.setCursor(0,1);
    lcd.print("Humidity: ");
    dht.begin();
}

void loop() {
    float h = dht.readHumidity();
    float t = dht.readTemperature();

    if (isnan(t) || isnan(h)) {
        lcd.setCursor(0, 0);
        lcd.print("Error reading");
```

- Then, using the loop to display the temperature and humidity information on the LCD screen.

```ino
    lcd.setCursor(0,1);
    lcd.print("Humidity: ");
    dht.begin();
}

void loop() {
    float h = dht.readHumidity();
    float t = dht.readTemperature();

    if (isnan(t) || isnan(h)) {
        lcd.setCursor(0, 0);
        lcd.print("Error reading");
    } else {
        lcd.setCursor(6, 0);
        lcd.print(t);
        lcd.print(" C");

        lcd.setCursor(9, 1);
        lcd.print(h);
        lcd.print(" %");
    }

    delay(2000);
}
```

- Finally, connect to Arduino Uno and transfer the code. The LCD will display information and the Arduino will light up.



- The temperature will be copied to a .csv file and saved manually.