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Enrollment number - 21162101012 & 21162101017
Branch - CBA Batch - 71
IOT Practical 5

AIM : Interface Temperature & Humidity sensor with Arduino

Code :

```
#include <OneWire.h>
#include <DallasTemperature.h>

// Data wire is connected to digital pin 2
#define ONE_WIRE_BUS 2

#define RED_LED 13
#define YELLOW_LED 12

// Setup a oneWire instance to communicate with any OneWire
device
OneWire oneWire(ONE_WIRE_BUS);

// Pass the oneWire reference to Dallas Temperature
DallasTemperature sensors(&oneWire);

void setup() {
  // Start serial communication
  Serial.begin(9600);

  // Start the DS18B20 sensor
  sensors.begin();

  // Set LED pins as output
  pinMode(RED_LED, OUTPUT);
```

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```
  pinMode(YELLOW_LED, OUTPUT);
}

void loop() {
  sensors.requestTemperatures();

  // Fetch temperature in Celsius
  float tempC = sensors.getTempCByIndex(0);

  // Print the temperature
  Serial.print("TEMPERATURE = ");
  Serial.print(tempC);
  Serial.println(" °C");

  // Determine which LED to blink
  if (tempC < 26) {
    // Blink RED LED
    digitalWrite(RED_LED, HIGH);
    delay(500);  // LED on for 500ms
    digitalWrite(RED_LED, LOW);
    delay(500);  // LED off for 500ms
  } else {
    // Blink YELLOW LED
    digitalWrite(YELLOW_LED, HIGH);
    delay(500);  // LED on for 500ms
    digitalWrite(YELLOW_LED, LOW);
    delay(500);  // LED off for 500ms
  }
}
```

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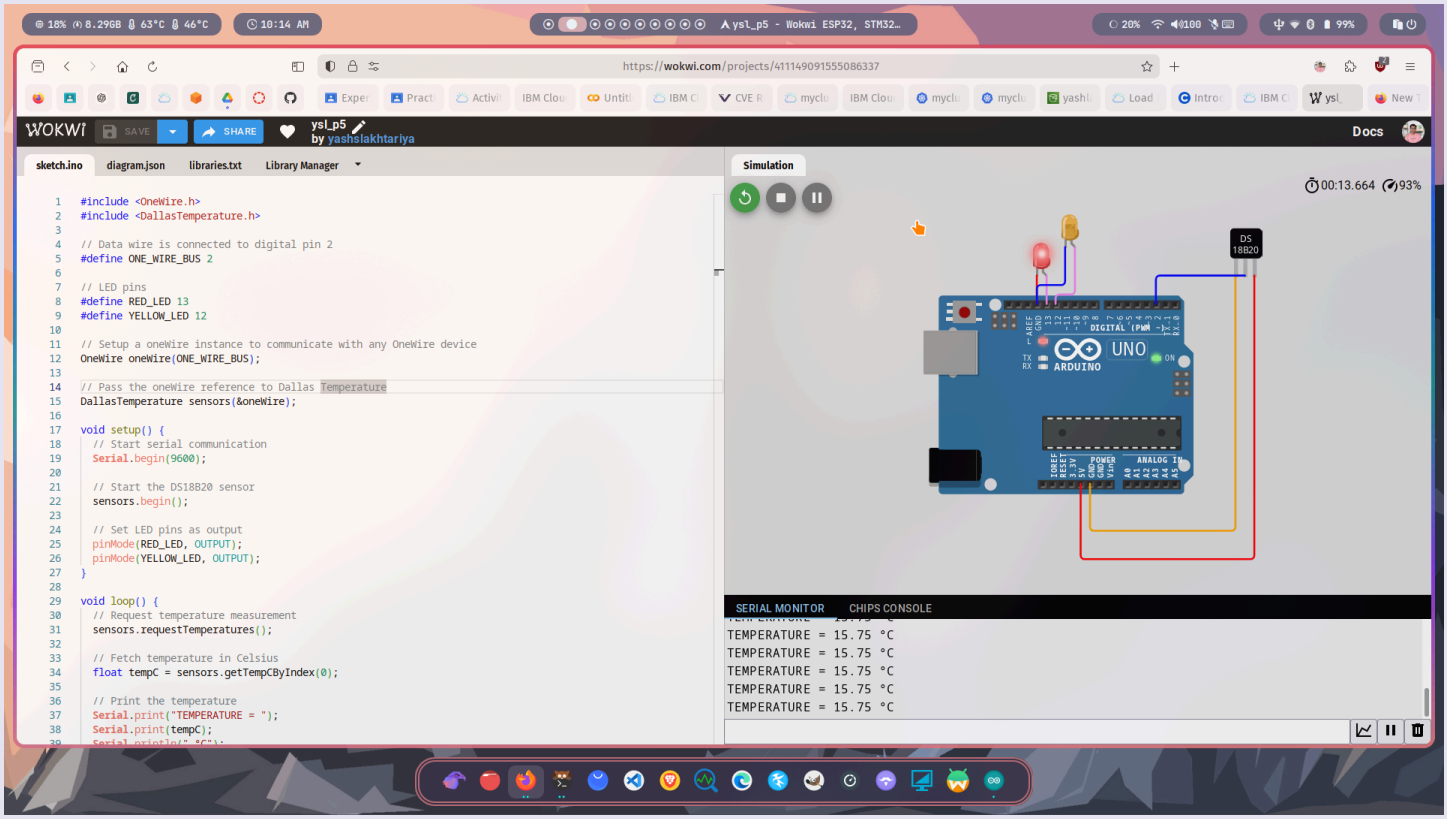
Output :



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