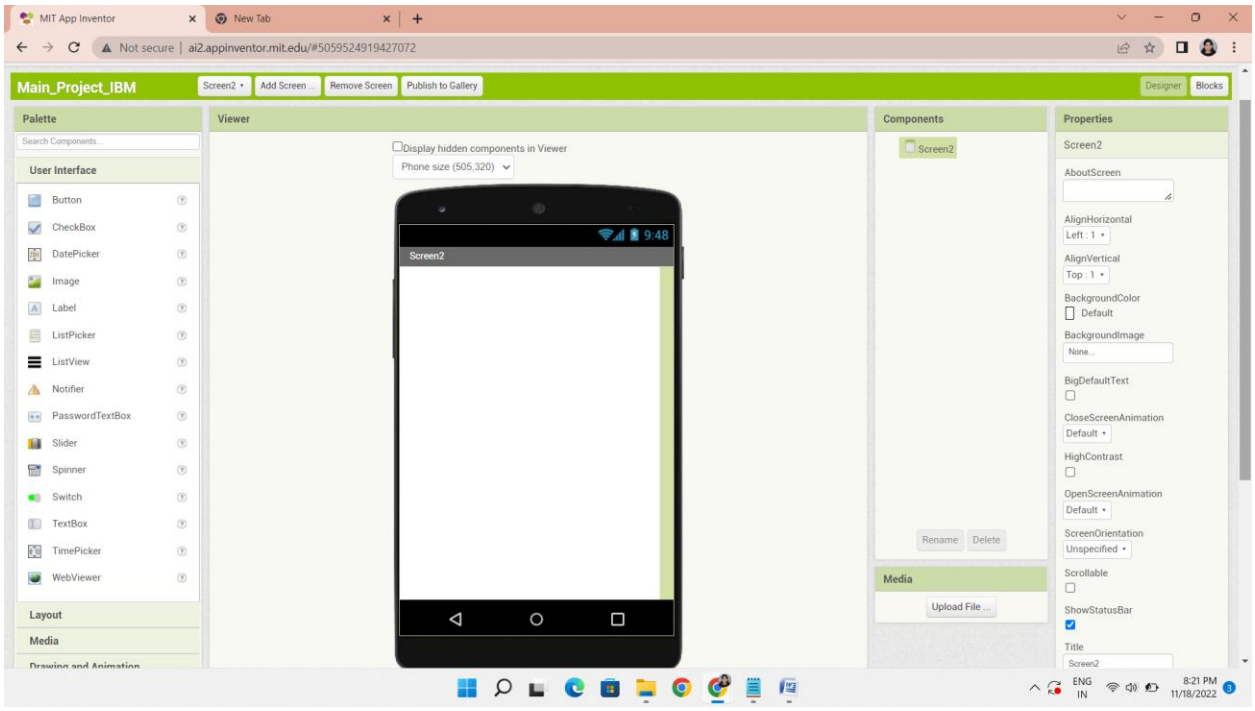
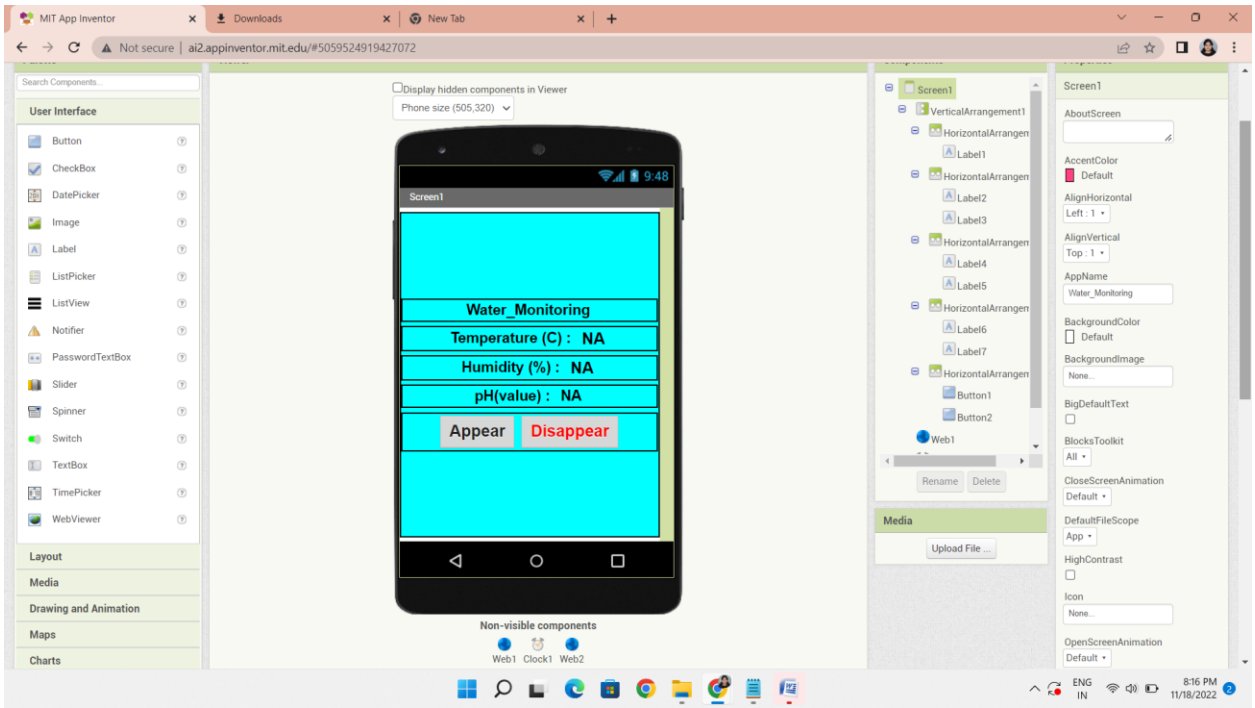
Sprint 4

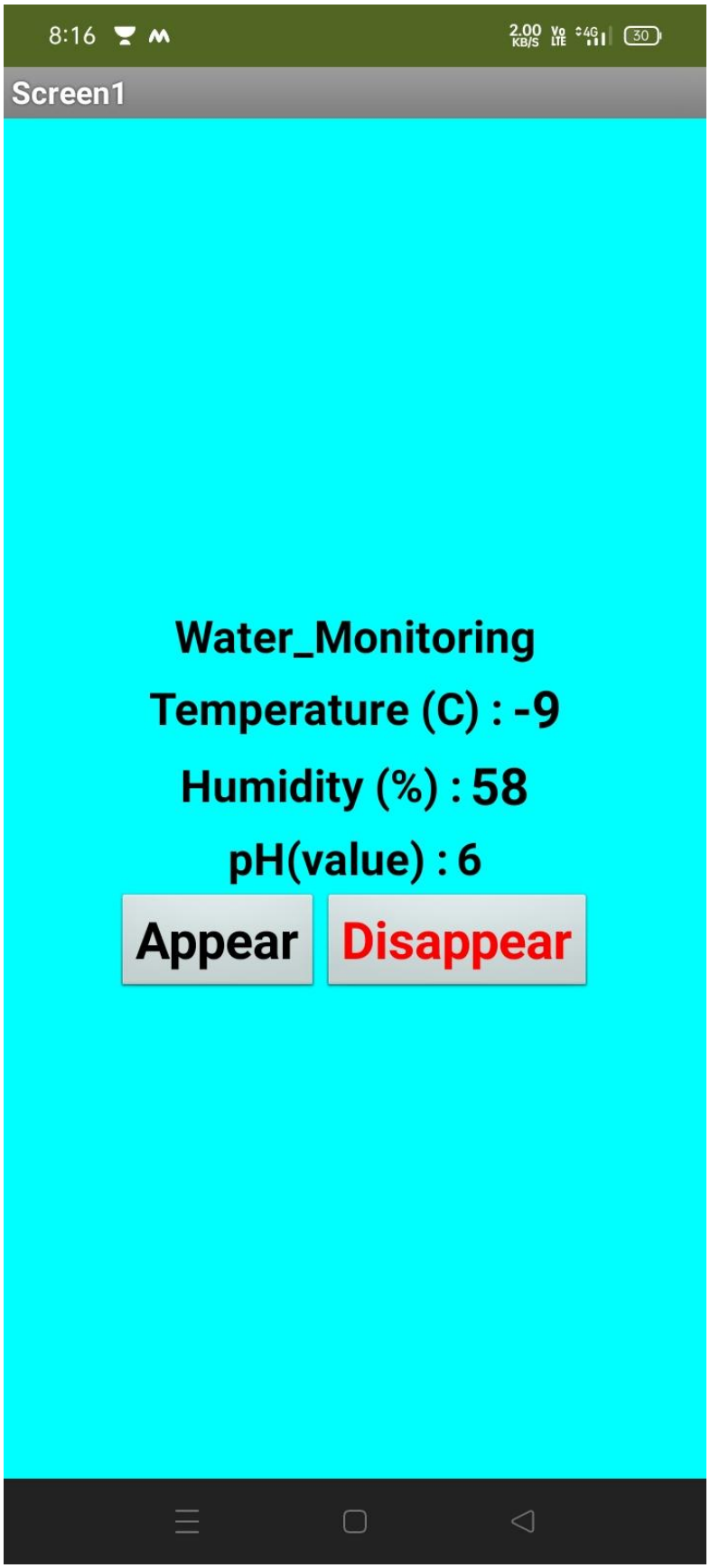
MIT App Login



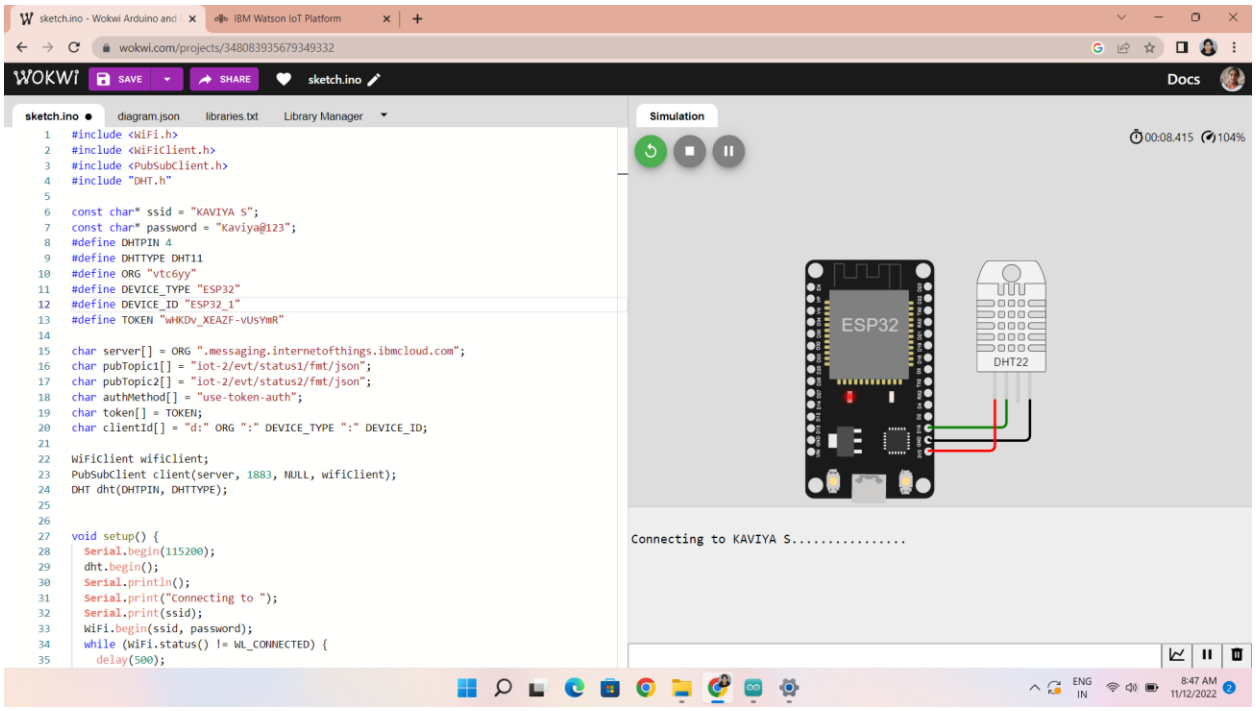
MIT App Monitoring



Output in Mobile Screen



Wokwi Output



Wokwi Code:

```
#include <WiFi.h>
#include <WiFiClient.h>
#include <PubSubClient.h>
#include "DHT.h"

const char* ssid = "KAVIYA S";
const char* password = "Kaviya@123";
#define DHTPIN 4
#define DHTTYPE DHT11
#define ORG "vtc6yy"
#define DEVICE_TYPE "ESP32"
#define DEVICE_ID "1002"
#define TOKEN "wHKDv_XEAZF-vUsYmR"

char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
char pubTopic1[] = "iot-2/evt/status1/fmt/json";
char pubTopic2[] = "iot-2/evt/status2/fmt/json";
char authMethod[] = "use-token-auth";
char token[] = TOKEN;
char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;

WiFiClient wifiClient;
PubSubClient client(server, 1883, NULL, wifiClient);
DHT dht(DHTPIN, DHTTYPE);


void setup() {
  Serial.begin(115200);
  dht.begin();
  Serial.println();
  Serial.print("Connecting to ");
  Serial.print(ssid);
  WiFi.begin(ssid, password);
  while (WiFi.status() != WL_CONNECTED) {
    delay(500);
    Serial.print(".");
  }
  Serial.println("");
```

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

  if (!client.connected()) {
    Serial.print("Reconnecting client to ");
    Serial.println(server);
    while (!client.connect(clientId, authMethod, token)) {
      Serial.print(".");
      delay(500);
    }
    Serial.println("Bluemix connected");
  }
}

long lastMsg = 0;
void loop() {
  client.loop();
  long now = millis();
  if (now - lastMsg > 3000) {
    lastMsg = now;
    float humidity = dht.readHumidity();
    float temperature = dht.readTemperature();
    String payload = "{\"d\":{\"Name\":\"" DEVICE_ID "\"";
    payload += ",\"temperature\":";
    payload += temperature;
    payload += "}}";

    Serial.print("Sending payload: ");
    Serial.println(payload);

    if (client.publish(pubTopic1, (char*) payload.c_str())) {
      Serial.println("Publish ok");
    } else {
      Serial.println("Publish failed");
    }
    String payload1 = "{\"d\":{\"Name\":\"" DEVICE_ID "\"";
    payload1 += ",\"humidity\":";
    payload1 += humidity;
    payload1 += "}}";

    if (client.publish(pubTopic2, (char*) payload1.c_str())) {
      Serial.println("Publish ok");
    } else {
      Serial.println("Publish failed");
    }
  }
}
```