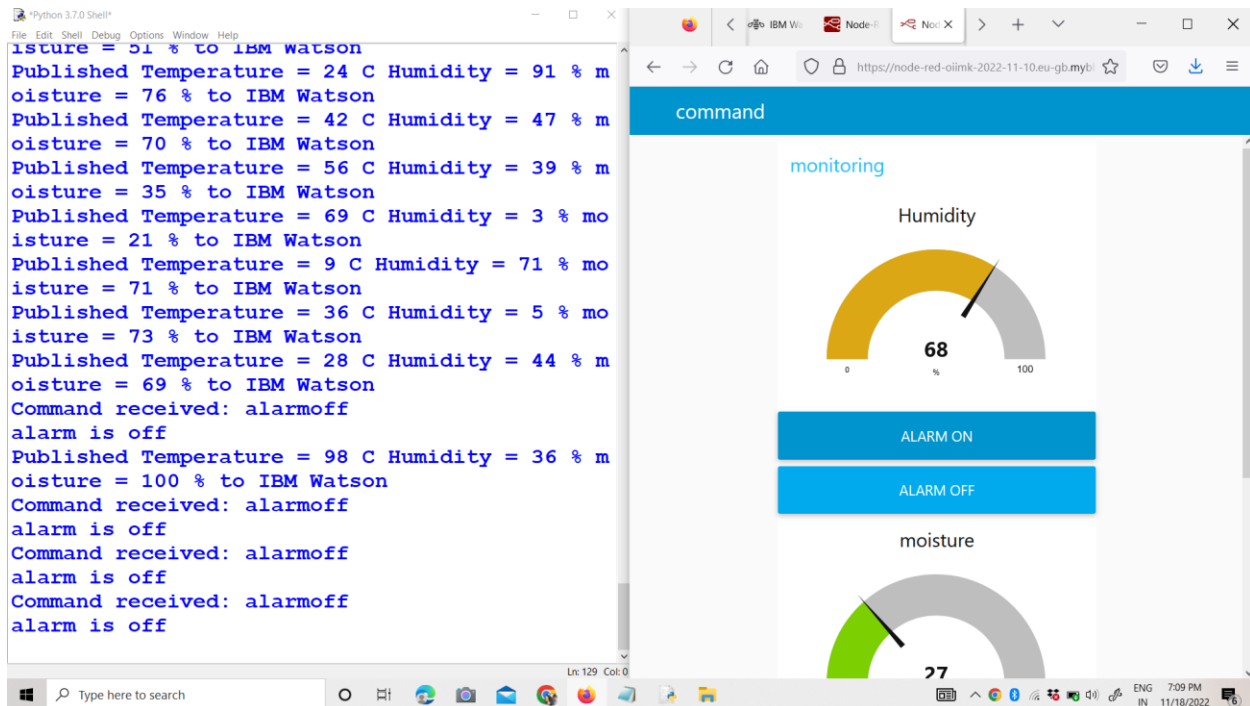
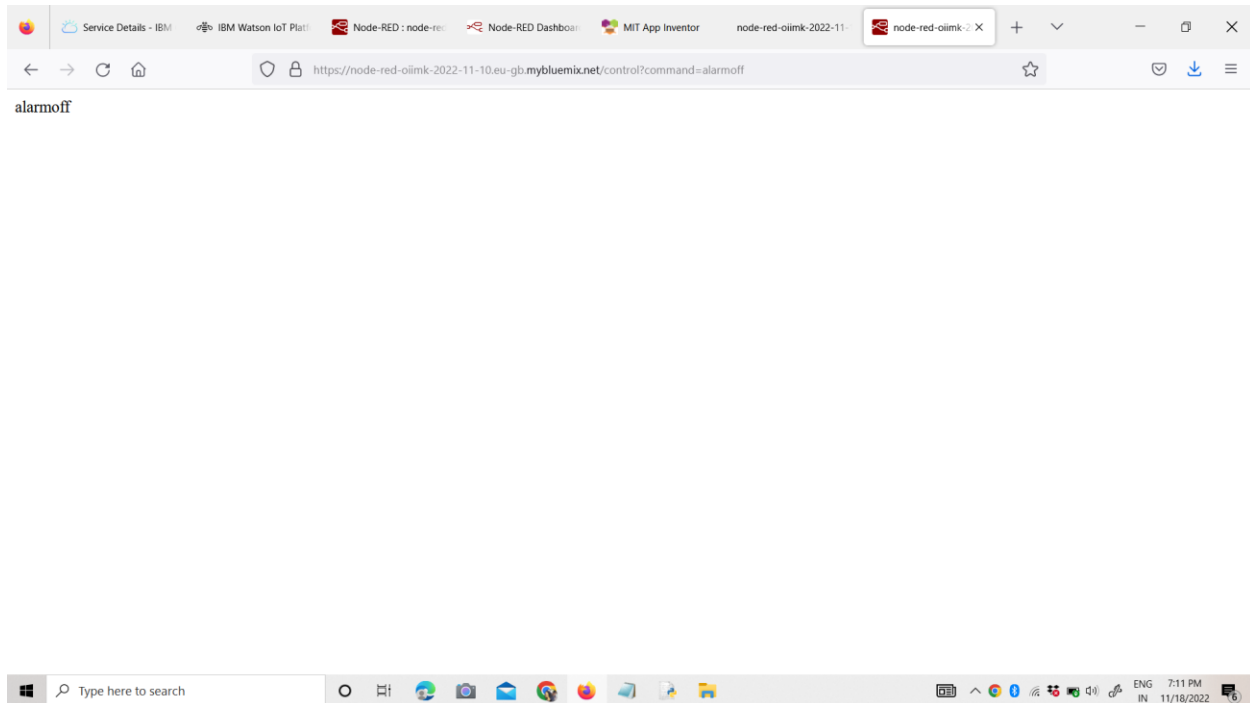


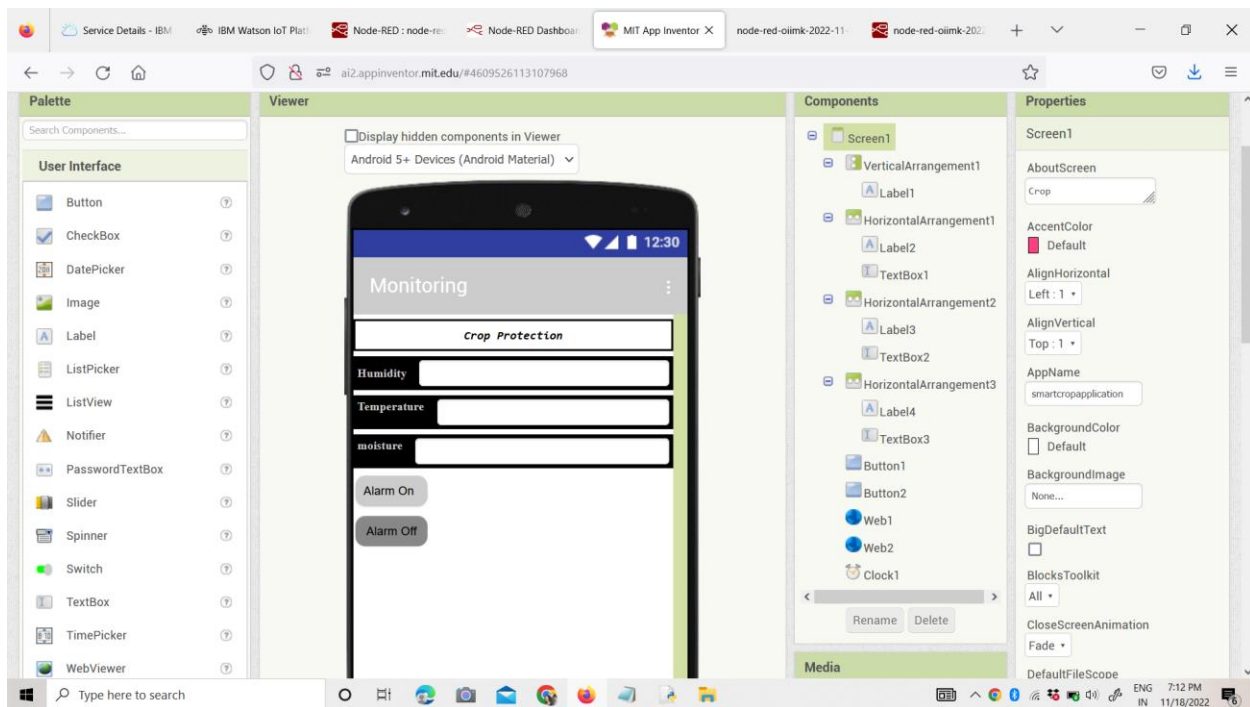
Sprint 4

Command is Received through Web application:

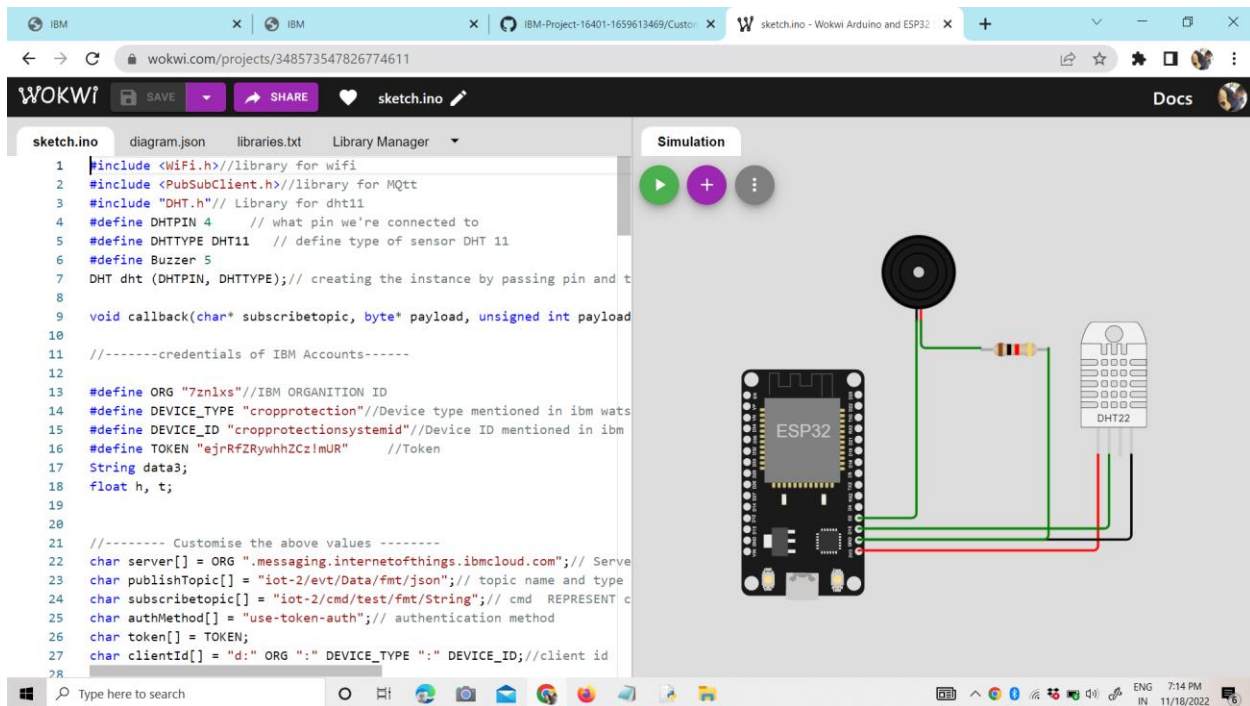




User Interface of Mobile Application:



Through Sensors Buzzer will Alert the User:



The screenshot displays the Wokwi IDE interface with a project titled "sketch.ino - Wokwi Arduino and ESP32". The left pane shows the Arduino sketch code, and the right pane shows a simulation of the hardware.

Sketch Code:

```
1 #include <WiFi.h> // library for wifi
2 #include <PubSubClient.h> // library for MQTT
3 #include "DHT.h" // Library for dht11
4 #define DHTPIN 4 // what pin we're connected to
5 #define DHTTYPE DHT11 // define type of sensor DHT 11
6 #define Buzzer 5
7 DHT dht (DHTPIN, DHTTYPE); // creating the instance by passing pin and t
8
9 void callback(char* subscribetopic, byte* payload, unsigned int payload
10
11 //-----credentials of IBM Accounts-----
12
13 #define ORG "7zn1xs" // IBM ORGANIZATION ID
14 #define DEVICE_TYPE "cropprotection" // Device type mentioned in ibm wats
15 #define DEVICE_ID "cropprotectionssystemid" // Device ID mentioned in ibm
16 #define TOKEN "ejrRfZRYwhhZCzImUR" // Token
17 String data3;
18 float h, t;
19
20
21 //----- Customise the above values -----
22 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Serve
23 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and type
24 char subscribetopic[] = "iot-2/cmd/test/fmt/String"; // cmd REPRESENT c
25 char authMethod[] = "use-token-auth"; // authentication method
26 char token[] = TOKEN;
27 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; // client id
28
```

Simulation: The right pane shows a simulation of the hardware. It includes an ESP32 microcontroller board, a DHT22 digital temperature and humidity sensor, and a buzzer. The sensor is connected to the ESP32 via a 4-pin header. The buzzer is connected to the ESP32's GND and a 5V pin.