ASSIGNMENT-4

Date	23 October 2022
TeamID	PNT2022TMID49546
Name	Sayee shakshi N D
MaximumMarks	2Marks

Question 1:

Write code and connections in work for ultrasonic sensor. Whenever distance is less than 100cms send "alert" to ibm cloud and display in device recent events.

CODE:

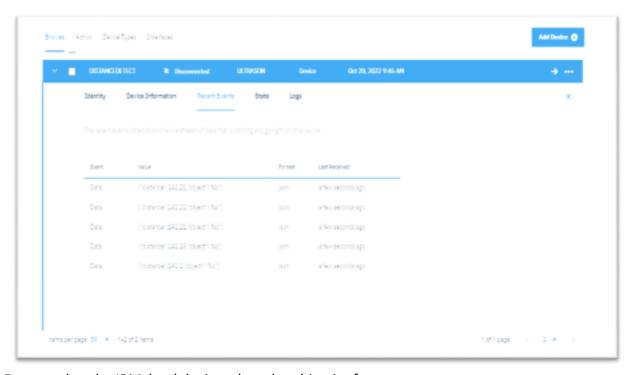
```
### additional content of the conten
```

```
esp32-blink.ino •
                 diagram json •
                                    libraries.txt .
                                                  Library Manager
       pinMode(trig, ourrut);
       pinMode(echo, INNUT);
       pinMode(LED, OUTPUT);
       delay(10);
       wificonnect();
       mqttconnect();
       void loop()// Recursive Function
        digitalWrite(trig, LOW);
         digitalwrite(trig, such);
         delayMicroseconds(10);
         digitalWrite(trig, 10%);
         float dur = pulseIn(echo,HIGH);
         float dist = (dur * 0.0343)/2;
         Serial.print ("Distancein cm");
         Serial.println(dist);
         PublishData(dist);
         delay(1000);
         if (iclient.loop()) {
           mqttconnect();
       void PublishData(float dist) {
         mqttconnect();//function call for connecting to ibm
```

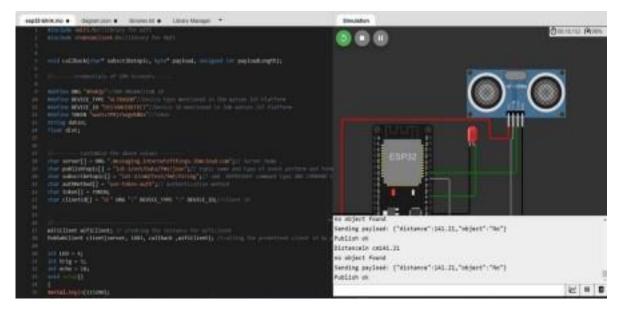
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```

```
Library Manager
esp32-blink.inp •
                                   libraries.bt .
                  diagram json .
         WiFi.begin("Wokwi-GUEST", "", 6);//passing the wifi credentials to establish the connection
         while (WiFi.status() |- WL CONNECTED) (
           delay(500);
           Serial.print(".");
         Serial println("");
         Serial.println("WiFi connected");
         Serial.println("IP address: ");
         Serial.println(WiFi.localIP());
       woid initHanagedDevice() (
        if (client.subscribe(subscribetopic)) {
           Serial.println((subscribetopic));
           Serial println("subscribe to cmd OK");
           Serial.println("subscribe to cmd FAILED");
       wold callback(char* subscribetopic, byte* payload, unsigned int payloadLength)
         Serial.printin(subscribetopic);
 1,48
         for (int i = 0; i < payloadlength; i++) {
           data3 += (char)payload[i];
```

OUTPUT:



Data send to the IBMcloud device when the objectics far



Data sent to the IBMCloud Device when the objectics near



When objectics near to the ultrasonic sensor

