Assignment - 4

Python Programming

Assignment Date	26 October 2022
Student Name	Mr. Abdul Gani.J
Student Roll Number	721719106001
Maximum Marks	2 Marks

Question-1:

Write code and connections in wokwi for ultrasonic sensor.
Whenever distance is less than 100 cms send "alert" to ibm cloud and display in device recent events.
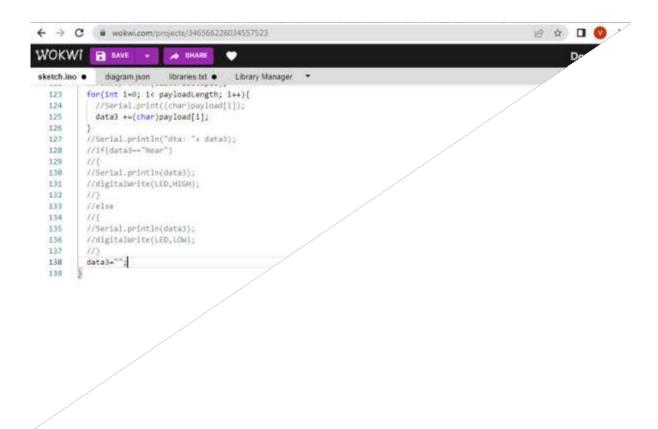Upload document with wokwi share link and images of ibm cloud.

Solution:

sketch.ino ●   diagram.json   libraries.txt ●   Library Manager ▾   Simu

```
92          }
93          initManagedDevice();
94          Serial.println();
95        }
96      }
97      void wificonnect()//function defenition for wificonnect
98      {
99        Serial.println();
100       Serial.print("Connecting to ");
101       WiFi.begin("Wokwi.GUEST", "",6);//PASSING THE WIFI CREDIDENTIALS TO ESTABLISH CONNECTION
102       while (WiFi.status() !=WL_CONNECTED){
103         delay(500);
104         Serial.print(".");
105       }
106       Serial.println("");
107       Serial.println("WiFi connected");
108       Serial.println("IP address");
109       Serial.println(WiFi.localIP());
110     }
111     void initManagedDevice(){
112       if(client.subscribe(subscribetopic)){
113         Serial.println((subscribetopic));
114         Serial.println("subscribe to cmd OK");
115       }else{
116         Serial.println("subscribe to cmd failed");
117       }
118     }
119     void callback(char* subscribetopic,byte*payload,unsigned int payloadLength)
120     {
121       Serial.print("callback invoked for topic: ");
122       Serial.println(subscribetopic);
```

Co
nn
ec
ti
ng
to ▾

```
123    for(int i=0; i< payloadLength; i++){
124      //Serial.print((char)payload[i]);
125      data3 +=(char)payload[i];
126    }
127    //Serial.println("dta: "+ data3);
128    //if(data3=="Near")
129    //{
130    //Serial.println(data3);
131    //digitalWrite(LED,HIGH);
132    //}
133    //else
134    //{
135    //Serial.println(data3);
136    //digitalWrite(LED,LOW);
137    //}
138    data3="";
139  }
```

OUTPUT:
DATA IS SENT TO IBM CLOUD WHEN NO OBJECT IS DETECTED

When no object is detected

When object is detected in ultrasonic detector