

## Assignment -4

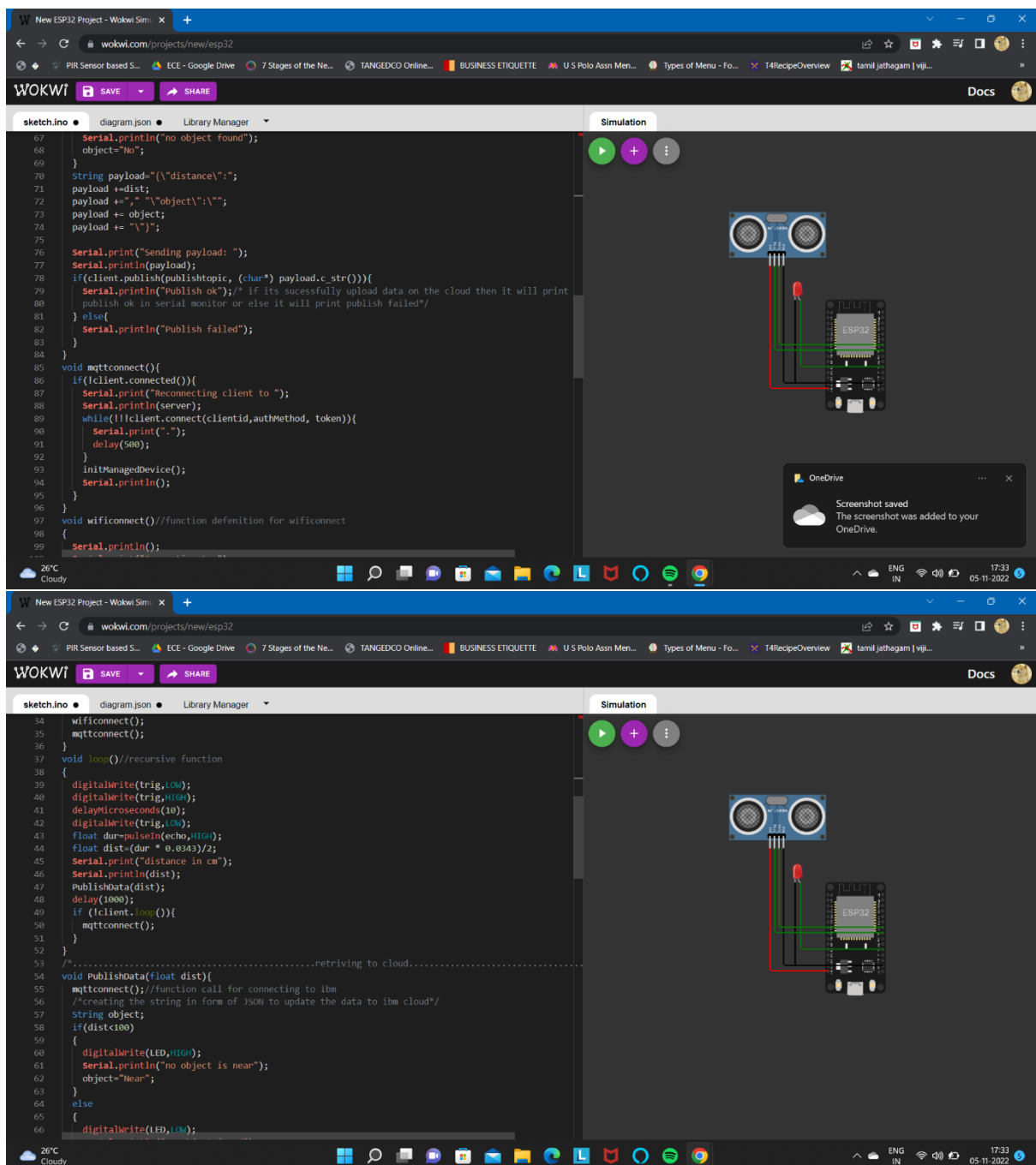
NAME	Arun Prasad V
TEAM ID	PNT2022TMID25961
Project	Real-Time River Water Quality Monitoring and Control System

Question:

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



W New ESP32 Project - Wokwi Sim... x

wokwi.com/projects/new/esp32

PIR Sensor based S... ECE - Google Drive 7 Stages of the Ne... TANGEDCO Online... BUSINESS ETIQUETTE U S Polo Assn Men... Types of Menu - Fo... T4RecipeOverview tamil jathagam | viji...

WOKWI SAVE SHARE Docs

sketch.ino diagram.json Library Manager

```

130 //Serial.println(data3);
131 //digitalWrite(LED,HIGH);
132 //}
133 //else
134 //{
135 //Serial.println(data3);
136 //digitalWrite(LED,LOW);
137 //}
138 data3="";
139 }

```

Simulation

26°C Cloudy

W New ESP32 Project - Wokwi Sim... x

wokwi.com/projects/new/esp32

PIR Sensor based S... ECE - Google Drive 7 Stages of the Ne... TANGEDCO Online... BUSINESS ETIQUETTE U S Polo Assn Men... Types of Menu - Fo... T4RecipeOverview tamil jathagam | viji...

WOKWI SAVE SHARE Docs

sketch.ino diagram.json Library Manager

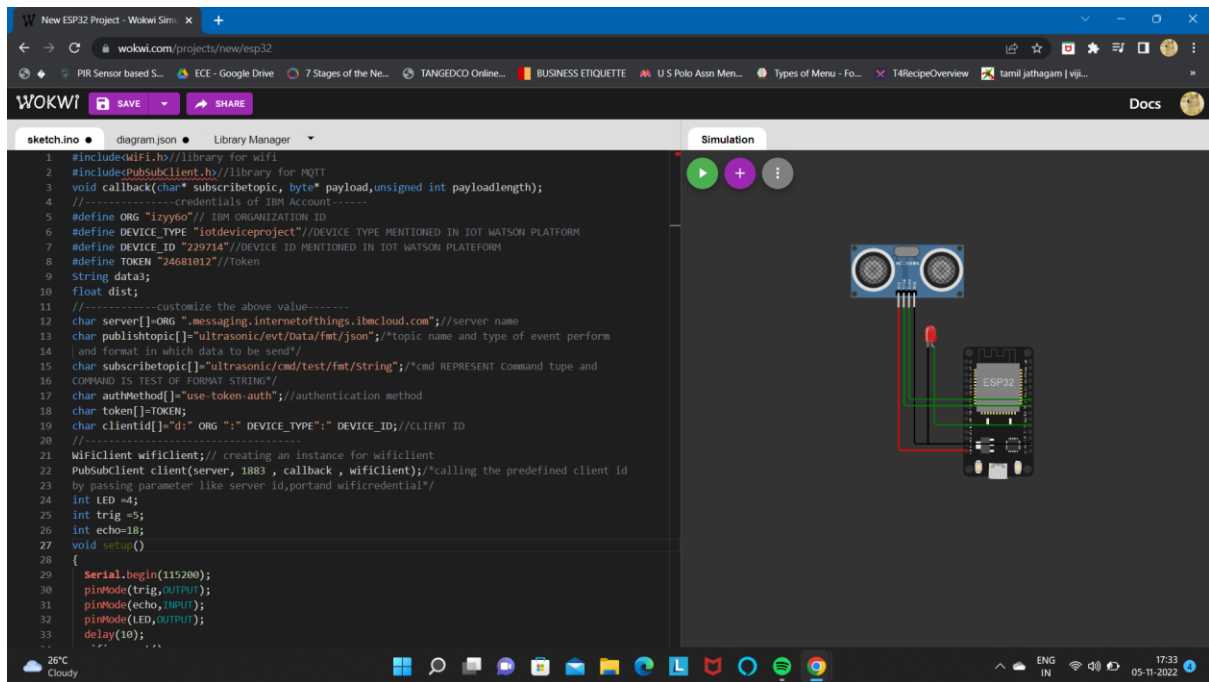
```

98 {
99   Serial.println();
100   Serial.print("Connecting to ");
101   WiFi.begin("wokwi.GUEST", ""); //PASSING THE WIFI CREDENTIALS 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);
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);

```

Simulation

26°C Cloudy



<https://wokwi.com/projects/347489586971148882>

Browse
Action
Device Types
Interfaces

Add Device

DISTANCEDETECT
Disconnected
ULTRASON
Device
Oct 20, 2022 9:46 AM

Identity
Device Information
Recent Events
State
Logs

The recent event listed shows the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
Data	["distance":79.66,"object":"Near"]	json	a few seconds ago
Data	["distance":79.64,"object":"Near"]	json	a few seconds ago
Data	["distance":79.66,"object":"Near"]	json	a few seconds ago
Data	["distance":79.64,"object":"Near"]	json	a few seconds ago
Data	["distance":79.66,"object":"Near"]	json	a few seconds ago

Items per page: 50

1-2 of 2 items

1 of 1 page

1

Data sent to the IBM Cloud Device when the object is near

Browse

Action

Device Types

Interfaces

Add Device

DISTANCEDETECT

Disconnected

ULTRASON

Device

Oct 20, 2022 9:46 AM

→

...

Identity

Device Information

Recent Events

State

Logs

X

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
Data	["distance":141.21,"object":"No"]	json	a few seconds ago
Data	["distance":141.21,"object":"No"]	json	a few seconds ago
Data	["distance":141.21,"object":"No"]	json	a few seconds ago
Data	["distance":141.18,"object":"No"]	json	a few seconds ago
Data	["distance":141.2,"object":"No"]	json	a few seconds ago

Items per page: 50 | 1-2 of 2 items

1 of 1 page

<

1

>

Data sent to the IBM Cloud Device when the object is far.