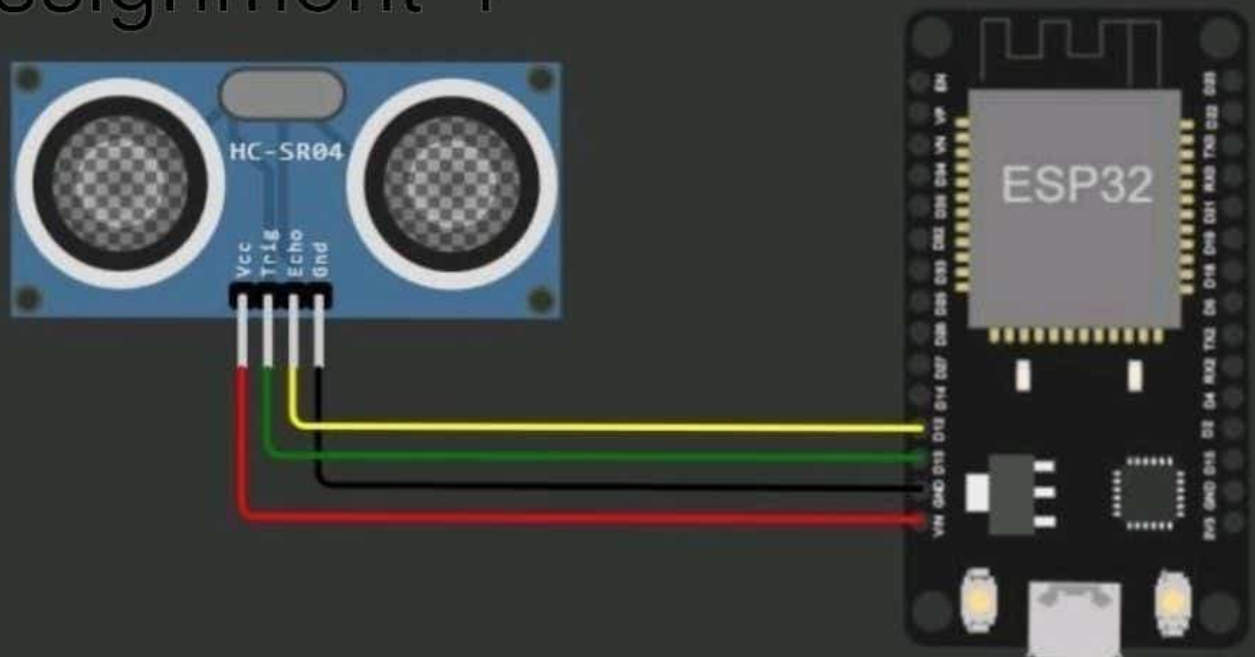


assignment 4



OUTPUT:

sketch.ino diagram.json libraries.txt Library Manager

```
75 string payload = "{\"Distance\":";
76 payload+=d;
77 payload+=",";
78 payload+="MESSAGE\":\"";
79 payload+=s;
80 payload+="\"";
81 payload+=s;
82 payload+=}\"";
83
84
85 Serial.print("Sending payload: ");
86 Serial.println(payload);
87
88
89 if (client.publish(topic, (char*) payload.c_str())) {
90   Serial.println("Publish ok");// If it successfully upload data on the cloud then it will
91 } else {
92   Serial.println("Publish failed");
93 }
94
95
96
97
98
99
100 void mqttconnect() {
101   if (!client.connected()) {
102     Serial.print("Attempting client to ");
103     Serial.println(server);
104     while (!client.connect(clientId, authMethod, token)) {
105       Serial.print("-");
106       delay(500);
107     }
108   }
109   initParametersAndVariables();
110 }
```

Simulation

00:16.186 94%

Editing Ultrasonic Distance Sensor
Distance: 135cm

Publish ok
Sending payload: {"Distance":134.96,"MESSAGE":"SAFE"}
Publish ok
Sending payload: {"Distance":134.96,"MESSAGE":"SAFE"}
Publish ok
Sending payload: {"Distance":134.98,"MESSAGE":"SAFE"}
Publish ok

sketch.ino diagram.json libraries.txt Library Manager

```
75 string payload = "{\"Distance\":";
76 payload+=d;
77 payload+=",";
78 payload+="MESSAGE\":\"";
79 payload+=s;
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98
99
100 void mqttconnect() {
101   if (!client.connected()) {
102     Serial.print("Attempting client to ");
103     Serial.println(server);
104     while (!client.connect(clientId, authMethod, token)) {
105       Serial.print("-");
106       delay(500);
107     }
108   }
109   initParametersAndVariables();
110 }
```

Simulation

00:28.127 97%

Editing Ultrasonic Distance Sensor
Distance: 98cm

Publish ok
Sending payload: {"Distance":98.99,"MESSAGE":"ALERT"}
Publish ok
Sending payload: {"Distance":98.97,"MESSAGE":"ALERT"}
Publish ok
Sending payload: {"Distance":98.97,"MESSAGE":"ALERT"}
Publish ok

The screenshot shows the AWS IoT console interface. At the top, there are tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. On the right, there is an 'Add Device' button. The main content area displays details for a device named 'abcd', which is 'Connected'. The 'Recent Events' tab is selected, showing a list of events. The events are as follows:

Event	Value	Format	Last Received
Data	{"Distance":126.96,"MESSAGE":"SAFE"}	json	a few seconds ago
Data	{"Distance":126.99,"MESSAGE":"SAFE"}	json	a few seconds ago
Data	{"Distance":120.99,"MESSAGE":"SAFE"}	json	a few seconds ago
Data	{"Distance":98.97,"MESSAGE":"ALERT"}	json	a few seconds ago
Data	{"Distance":98.97,"MESSAGE":"ALERT"}	json	a few seconds ago

At the bottom of the console, there is a status bar that says '0 Simulations running'.