WEEK 1 ASSIGNMENT

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INTERN DOMAIN: IOT
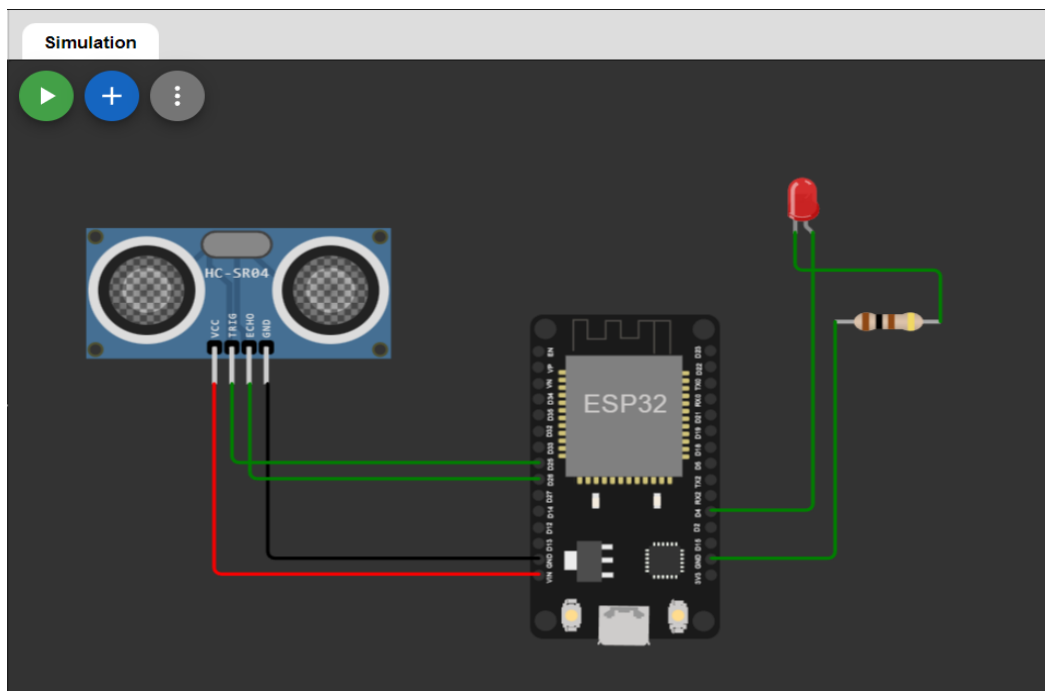
TASK:

In Wokwi simulator, if the distance is less than 100 cms for ultrasonic sensor, glow a LED.
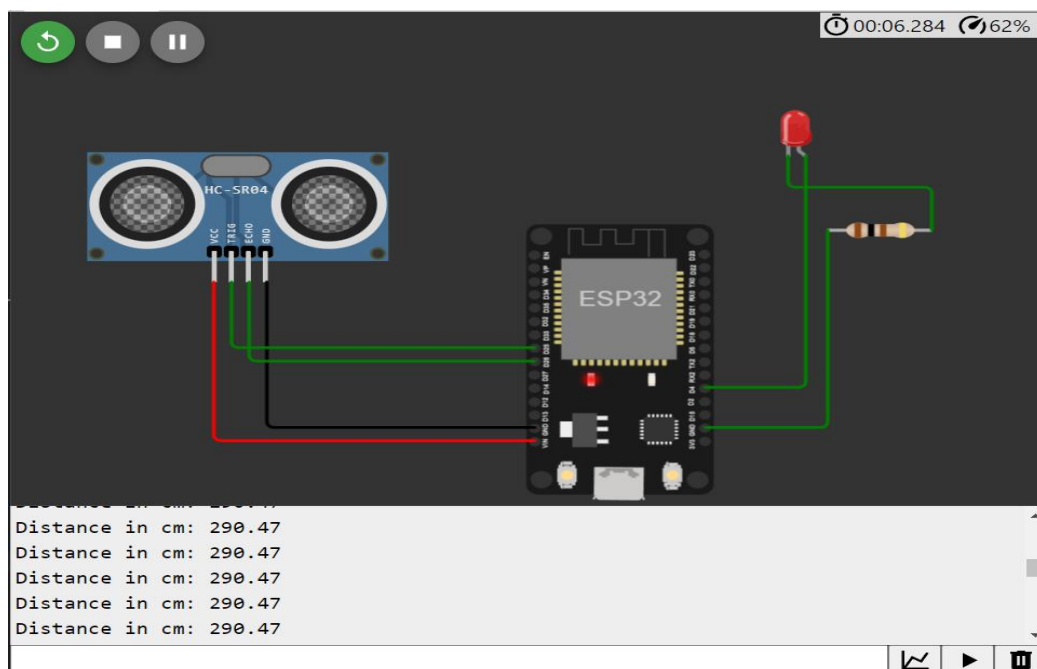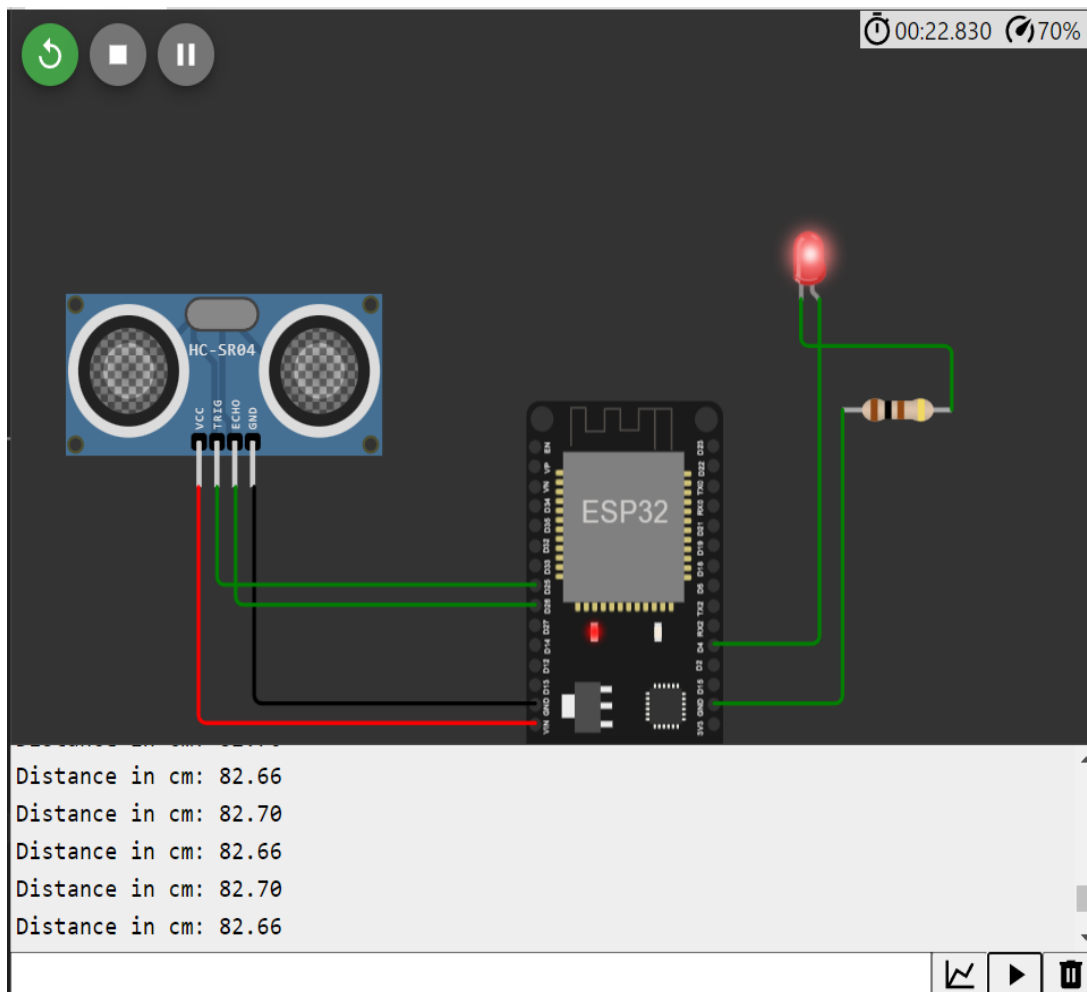
WOKWI LINK:

https://wokwi.com/projects/365167589978278913

Circuit Diagram:

CODE:

```
1    int t=25;
2    int e=26;
3    void setup()
4    {
5      Serial.begin(9600);
6      pinMode(t, OUTPUT);
7      pinMode(e, INPUT);
8      pinMode(4, OUTPUT);
9    }
10
11   void loop()
12   {
13     digitalWrite(t,LOW);
14     digitalWrite(t,HIGH);
15     delayMicroseconds(10);
16     digitalWrite(t,LOW);
17     float dur = pulseIn(e,HIGH);
18     float dist = (dur*0.0343)/2;
19     Serial.print("Distance in cm: ");
20     Serial.println(dist);
21     if(dist<100)
22     {
23       digitalWrite(4,HIGH);
24
25     }
26     else
27     {
28       digitalWrite(4,LOW);
29     }
30   }
```

OUTPUTS:

When distance of ultrasonic sensor is greater than 100cm:

When distance of ultrasonic sensor is less than 100cm:


```
Distance in cm: 82.66
Distance in cm: 82.70
Distance in cm: 82.66
Distance in cm: 82.70
Distance in cm: 82.66
```

RESULT: Given task was carried out successfully.