Assignment -4

Python Programming

Assignment Date	17 October 2022
Student Name	Narmadha .M
Student Roll Number	211419106178
Maximum Marks	2 Marks

Question-1:

write a python code and connections in wokwi for ultrasonic sensor when our distance is less than 100 cm send alert to cloud and display in device recent events

```
import RPi.GPIO as GPIO
import time
GPIO.setmode(GPIO.BCM)
GPIO_ECHO = 13
GPIO_TRIG = 11
GPIO.setup(GPIO_ECHO, GPIO.IN)
GPIO.setup(GPIO_TRIG, GPIO.OUT)
GPIO.output(GPIO_TRIG, GPIO.LOW)
Time.sleep(2)
GPIO.output(GPIO_TRIG, GPIO.HIGH)
time.sleep(0.00001)
GPIO.output(GPIO_TRIG, GPIO.LOW)
while GPIO.input(GPIO_ECHO)==0:
   start_time = time.time()
while GPIO.input(GPIO_ECHO)==1:
   Bounce_back_time = time.time()
pulse_duration = Bounce_back_time - start_time
distance = round(pulse_duration * 17150, 2)
print (f"Distance: {distance} cm")
```

while True:

    if distance < 100 :

        print('Alert!!!')

```
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GPIO.setmode(GPIO.BCM)
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while GPIO.input(GPIO_ECHO)==0:
    start_time = time.time()

while GPIO.input(GPIO_ECHO)==1:
    Bounce_back_time = time.time()
pulse_duration = Bounce_back_time - start_time
distance = round(pulse_duration * 17150, 2)
print (f"Distance: {distance} cm")
while True:
    if distance < 100 :
        print('Alert!!!')
```