Assignment - 4

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Maximum marks	2 marks

Question-1:

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

Program:

```
int t=2;
int e=3;

void setup() {

        Serial.begin(9600);
        pinMode(t,OUTPUT);
        pinMode(e,INPUT);
        pinMode(12,OUTPUT );
}

void loop() {

        //ultrasonic sensor

        digitalWrite(t,LOW);

        digitalWrite(t,HIGH);

        delayMicroseconds(10);

        digitalWrite(t,LOW);

        float dur=pulseIn(e,HIGH);

        float dis=(dur*0.0343)/2;
```

```
Serial.print("Distance is: ");

Serial.println(dis);

//LED ON

if(dis>=100){

digitalWrite(8,HIGH);

digitalWrite(7,HIGH );

}

//Buzzer For ultrasonic Sensor

if(dis>=100) {

for(int i=0; i<=30000; i=i+10) {

        tone(12,i);

        delay(1000);

        noTone(12);

        delay(1000);

}

}
```