ASSIGNMENT-4

Team Id: PNT2022TMID3942

Assignment date	25 th October 2022
Student Name	B.Hemaranjani
Student Roll number	510119106003
Maximum marks	2marks

Question:

Write code and connections in wokwi for ultrasonic sensor. Whenever distance is less than 100cms send "alert" to ibm cloud and display in device recent events.

Coding:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
void setup() {
 Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
 pinMode(ECHO_PIN, INPUT);
}
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}
```

```
void loop() {
  float distance = readDistanceCM();
  bool isNearby = distance < 100;
  digitalWrite(LED_BUILTIN, isNearby);
  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());
  delay(100);
}</pre>
```

Design:



Design Link:

https://wokwi.com/projects/346478359345103442

Simulation:

