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ASSIGNMENT -3

IOT-Build wowki product, use ultrasonic sensor and detect the distance from the object. Whenever distance is less than 100cms upload the value to the ibm cloud.in recent device events upload the data from wokwi.

PROGRAM:

```
/*
  HC-SR04 Ultrasonic Sensor Example.

  Turn the LED on when an object is within 100cm range.

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*/

#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);  
}
```

SIMULATION:

