## Assignment -4

Assignment Date	16 <sup>th</sup> November 2022		
Team ID	PNT2022TMID22052		
Project Name	Smart Farmer-IoT Enabled Smart Farming		
	Application		
Maximum Marks	2 Marks		

## Question-1:

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

## **Solution:**

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "fkxdqs"
#define deviceType = "Arduino"
#define deviceId = "1200"
#define authMethod = "use-token-auth"
#define authToken = "00000000"
void setup() {
Serial.begin(9600);
 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();
        if(distance <= 100)
        {
         Serial.println("person detected");
        }
        else{
        Serial.print("Measured
        distance: ");
         Serial.println(readDistanceC
         M());
        }
         delay(1000);
  ₩ sketch.ino - Wokwi Arduino and × +
    ← → C 

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     Simulation
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            }
float readDistanceCM() {
digitalWrite(TRIG_PIN, LOW);
delayMicroseconds(2);
digitalWrite(TRIG_PIN, HIGH);
delayMicroseconds(10);
delayMicroseconds(10);
digitalWrite(TRIG_PIN, LOW);
int duration = pulseIn(ECHO_PIN, HIGH);
return duration * 0.034 / 2;
}
            }
void loop() {
float distance = readDistanceCM();
if(distance <= 100)
{
Serial.println("person detected ");
                                                                                     Measured distance: 395.25
                                                                                     Measured distance: 395.27
            } else{
Serial.print("Measured distance: ");
Serial.println(readDistanceCM());
                                                                                     person detected
                                                                                     person detected
                                                                                     person detected
            delay(1000);
                                                                                                                                                          Type here to search
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```

**Wokwi Link:** https://wokwi.com/projects/347558633522856532