Assignment -4

Assignment Date	25 October 2022
Team ID	PNT2022TMID01830
Project Name	Project-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 = "of10a1"

#define deviceType = "ultrasonic"

#define deviceId = "iot001"

#define authMethod = "use-token-auth"

#define authToken = "12345678"

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
```
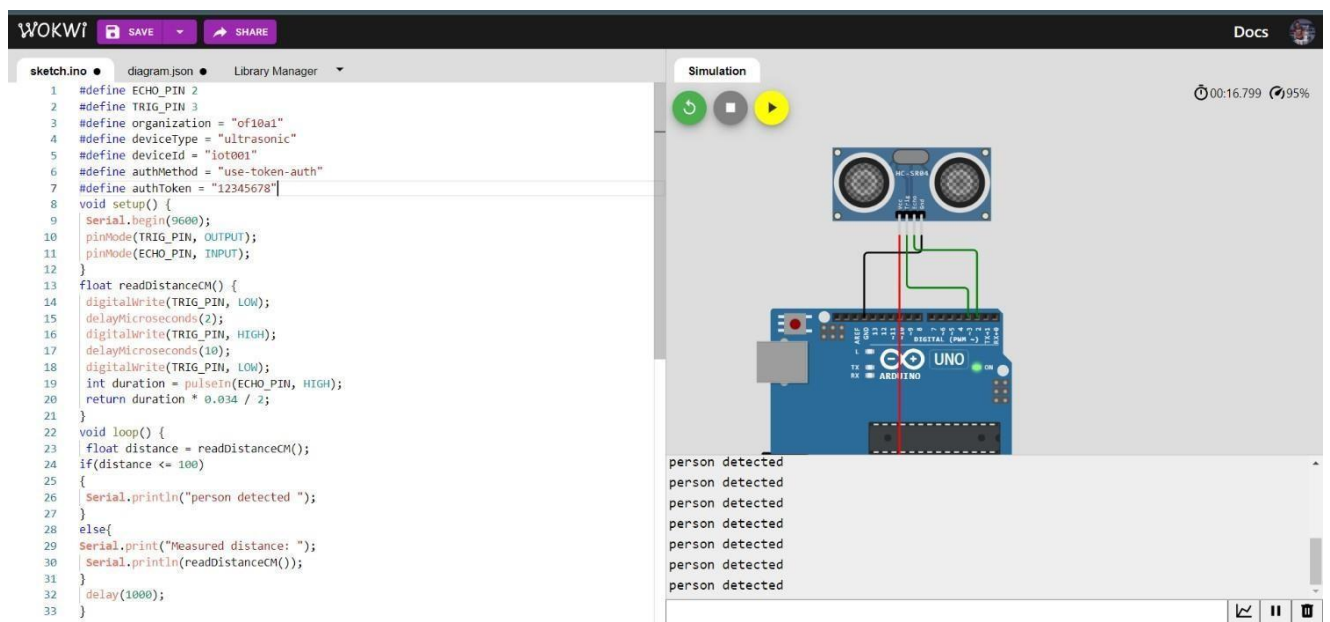
```
duration = pulseIn(ECHO_PIN,
HIGH); return duration * 0.034 /
2;

}

void loop() { float distance = readDistanceCM();
if(distance <=
100)
{
  Serial.println("person detected ");
}
else{
Serial.print("Measured distance: ");
 Serial.println(readDistanceCM());
}
 delay(1000);
}
```

IBM Cloud

Device Recent Events