IBM -NALAIYA THIRAN

INTERNET OF THINGS

BATCH : B3-3M5E

ASSIGNMENT NO : 1

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ASSIGNMENT QUESTION:

Create a Smart Home in Tinkercad, using 2+ sensors,Led, Buzzer in single code and circuit.

CODE:

```
int trig=3;
int echo=5;
void setup()
{
    pinMode(trig,OUTPUT);
    pinMode(echo,INPUT);
    pinMode(7,INPUT);
    Serial.begin(9600);
    pinMode(10,OUTPUT);
    pinMode(4,OUTPUT);
    pinMode(12,OUTPUT);
}

void loop()
```

```
{
    double a=analogRead(A2);
    Serial.print("adc value:");
    Serial.println(a);
    Double v=a/1024;
    Double tvolt=v*5;
    Serial.print("Temp Volt: ");
    Serial.println(tvolt);
    double o=tvolt-0.5;
    double t=0*100;
    Serial.print("Temp is : ");
    Serial.println(t);
    digitalWrite(trig,LOW);
    digitalWrite(trig,HIGH);
    delay Microseconds(10);
    digitalWrite(trig,LOW);
    float dur=pulseIn(echo,HIGH);
    float distance=(dur*0.0343)/5;
    Serial.println("Distance : ");
    Serial.println(dist);
    int m=digitalRead(7);
    Serial.print("Movement is Detected");
    Serial.println(m);
    if(t>=60)
    {
        Serial.println("High Temperature");
        digitalWrite(10,HIGH);
    }
    else
    {
        Serial.println("Low Temperature");
        digitalWrite(10,LOW);
    }
```

```
if(distance<=20)
{
        Serial.println("Open the dooe");
        digitalWrite(4,HIGH);
}
else
{
        Serial.println("Close the door");
        digitalWrite(4,LOW);
}
if(m==1)
{
        Serial.println("Turn on the light");
        digitalWrite(12,HIGH);
        delay(50);
}
else
{
        Serial.println("Turn off the light");
        digitalWrite(12,LOW);
        delay(50);

}
```

OUTPUT: