Assignment -1

Assignment Date	19 September 2022
Student Name	SomaSurya S
Student Roll Number	611219106069
Maximum Marks	2 Marks

Question-1:

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

Solution:

```
int trig = 2;
int echo = 3;
void setup()
{
pinMode(trig,OUTPUT);
pinMode(echo,INPUT);
Serial.begin(9600);
pinMode(7,OUTPUT);
pinMode(8,OUTPUT);
pinMode(13,INPUT);
pinMode(1,OUTPUT);
}
void loop()
{
digitalWrite(trig,LOW);
digitalWrite(trig,HIGH);
delayMicroseconds(10);
digitalWrite(trig,LOW);
float dur = pulseIn(echo,HIGH);
float dist = (dur*0.0343)/2;
Serial.print("Distance");
Serial.println(dist);
if(dist>=100){
digitalWrite(7,HIGH);
delay(100);
}
else{
digitalWrite(7,LOW);
delay(100);
}
double a=analogRead(A1);
Serial.print("Adc Value:");
Serial.println(a);
double v= a/1024;
double tvolt= v*5;
Serial.print("temp value voltage:");
Serial.println(tvolt);
double o = tvolt-0.5;
```

```
double t= o*100;
Serial.print ("Temperature is :");
Serial.println(t);
if (t>=300)
{
digitalWrite(8,HIGH);delay(1000);
}
else
{
digitalWrite(8,LOW);
delay(1000);
}
int m = digitalRead(13);
Serial.print("Motion detector");
Serial.println(m);
if(m == 1){
Serial.println("yes");
digitalWrite(1,HIGH);
}
else{
Serial.println("No");
digitalWrite(1,LOW);
}
}
```

Circuit :