Assignment -1

Python Programming

Assignment Date	13 September 2022
Student Name	Sowmikaa K
Student Roll Number	611219106071
Maximum Marks	2 Marks

Question-1:

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

Code:

```
#include <Servo.h>

Servo myservo;

#define ledR2 5

#define ledR1 4

#define ledY2 3

#define ledY1 2

#define ledG#define gas A0

#define buzzer 8

#define serv 9

void setup()

{

  pinMode(ledR1, OUTPUT);

  pinMode(ledR2, OUTPUT);

  pinMode(ledY1, OUTPUT);

  pinMode(ledY2, OUTPUT);

  pinMode(ledG1, OUTPUT);

  pinMode(buzzer,OUTPUT);

  myservo.attach(serv);

  pinMode(gas, INPUT);

  Serial.begin(9600);1 1

}

void loop()

{
```

```
  int read= analogRead(gas);
  int val= map(read,80,380,0,100);
  Serial.println(val);
  int servo= map(read,80,380,0,180);
  myservo.write(servo)
digitalWrite(ledG1, HIGH);
if(val>=20 && val<40){
digitalWrite(ledY1,HIGH);
}
if(val>=40 && val<60){
digitalWrite(ledY2,HIGH);
}
if(val>=60 && val<80){
digitalWrite(ledR1,HIGH);
}
if(val>=80){
  digitalWrite(ledG1, HIGH);
  digitalWrite(ledY1, HIGH);
  digitalWrite(ledY2, HIGH);
  digitalWrite(ledR1, HIGH);
  digitalWrite(ledR2, HIGH);
  delay(500);
  digitalWrite(ledG1, LOW);
  digitalWrite(ledY1, LOW);
  digitalWrite(ledY2, LOW);
  digitalWrite(ledR1, LOW);
  digitalWrite(ledR2, LOW);
delay(1000)
  tone(buzzer,1000,500);
}
if (val<80){
```

```
  noTone(buzzer);
}
}
```