**Assignment -1**

Home Automation

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| Assignment Date | 13 September 2022 |
| Student Name | Bhoobesh M |
| Student Roll Number | 611219106007 |
| Maximum Marks | 2 Marks |

**Question-1:**

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

**Code:**

```
#include <LiquidCrystaLh>
LiquidCrystal lcd(2,3,4,5,6,7);
#include <SoftwareSerial.h>
SoftwareSerial mySerial(9, IO);
int gas Value= AO; // smoke / gas sensor connected with analog pin A I of the arduino / mega.
int data= O;
int buzzer = 13;
int G_led = 8; // choose the pin for the Green LED
int R_led = 9; // choose the pin for the Red Led
void setup()
{
pinMode(buzzer,OUTPUT);
pinMode(R_led,OUTPUT); // declare Red LED as output
pinMode(G_led,OUTPUT); // declare Green LED as output
randomSeed( analogRead(0) );
mySerial.begin(9600); // Setting the baud rate of GSM ModuJe
SeriaLbegin(9600); // Setting the baud rate of Serial Monitor (Arduino)
led.begin( 16,2);
pinMode(gasValue, INPUT);
led.print (" Gas Leakage ");
led.setCursor(0, l );
led.print (" Detector Alarm ");
delay(3000);
led.clear();
}
void loop()
{
data= analogRead(gasValue);
Seri a I. print("Gas Level: ");
Serial.println(data);
led.print ("Gas Scan is ON");
led.setCursor(0, I);
```

```
led.print("Gas Level: ");
led. print( data);
delay( 1000);
if ( data > 90) //
{
digitalWrite(buzzer, HIGH);
digitalWrite(R_ led, HIGH); // Turn LED on.
digitalWrite(G_led, LOW); // Turn LED off.
SendMessage();
Serial.print("Gas detect alarm");
led.clear();
lcd.setCursor{0,0);
led.print("Gas Level Exceed");
led.setCursor{0, l);
led.print("SMS Sent");
delay( I 000);
}
else
{
digitalWrite(buzzer, LOW);
digitalWrite(R_ led, LOW);// Tum LED off.
digitalWrite(G_led, HIGH);// Tum LED on.
Serial.print("Gas Level Low");
led.clear();
lcd.setCursor(0,0);
led.print("Gas Level NonnaJ");
delay( I 000);
}
Icd.clearO;
}
void SendMessageO
{
Serial.println("I am in send");
mySerial.println(" AT +CMGF= l"); //Sets the GSM Module in Text Mode
delay( l000); // Delay of 1000 milliseconds or I second
mySerial.println("AT+CMGS=\"+9lx:xxxxx:xxxx\"\r"); // Replace x with mobile
number
delay( I 000);
mySerial.println("Excess Gas Detected.");// The SMS text you want to send
mySerial. println( data);
delay( l 00);
mySerial.println((char)26)// ASCII code ofCTRL+Z
delay( l 000);
}
```

**Circuit Diagram :**