

Assignment -1

Assignment Date	19 September 2022
Student Name	Mr.B.Yasveen Adithya
Student Roll Number	621319106105
Maximum Marks	2 Marks

Question-1:

Write code for home automation using Arduino in Tinkercad.

Solution:

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(5,6,8,9,10,11);

int redled = 2;
int greenled = 3;
int buzzer = 4;
int sensor = A0;
int sensorThresh = 400;

void setup()
{
  pinMode(redled, OUTPUT);
  pinMode(greenled,OUTPUT);
  pinMode(buzzer,OUTPUT);
  pinMode(sensor,INPUT);
  Serial.begin(9600);
  lcd.begin(16,2);
}

void loop()
{
  int analogValue = analogRead(sensor);
  Serial.print(analogValue);
  if(analogValue>sensorThresh)
  {
    digitalWrite(redled,HIGH);
    digitalWrite(greenled,LOW);
    tone(buzzer,1000,10000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("ALERT");
    delay(1000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("EVACUATE");
```

```

        delay(1000);
    }
    else
    {
        digitalWrite(greenled,HIGH);
        digitalWrite(redled,LOW);
        noTone(buzzer);
        lcd.clear();
        lcd.setCursor(0,0);
        lcd.print("SAFE");
        delay(1000);
        lcd.clear();
        lcd.setCursor(0,1);
        lcd.print("ALL CLEAR");
        delay(1000);
    }
}

```

