Project Development Phase
Sprint-4

Date	10 NOVEMBER 2022
Team ID	PNT2022TMID08708
Project Name	Gas leakage monitoring and alerting system for industries
Maximum Marks	2 Marks

```
#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);
  }
//BUZZER
void buzzer(float gasLevel){
if(gasLevel>=300)
  {
  for(int i=0; i<=30; i=i+10)
  {
  tone(4,i);
  delay(400);
```

```
  noTone(4);
  delay(400);
  }
  }
}
// Manually Exhaust FAN ON
void exhaustFanOn(int buttonState){
  if(buttonState == HIGH){
    digitalWrite(fan,HIGH);
    lcd.setCursor(0,0);
   lcd.print("Button State:");
    lcd.print(buttonState);
    lcd.setCursor(0,2);
    lcd.print("FAN ON");
    delay(10000);
    lcd.clear();
  }
```