PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-2

Team ID	PNT2022TMID44431
Project Name	Gas Leakage Monitoring System and Alerting System

```
 #include <LiquidCrystal.h>
LiquidCrystal lcd(6, 7, 8, 9, 10, 11);
float gasPin = A0;
float gasLevel;
int ledPin = 2;
int buttonPin = 3;
int buzzPin = 4;
int buttonState;
int fan = 5;
void setup(){
pinMode(ledPin, OUTPUT);
pinMode(buttonPin, INPUT);
pinMode(gasPin,INPUT);
pinMode(fan,OUTPUT);
Serial.begin(9600);
lcd.begin(16, 2);
lcd.setCursor(0,0);
lcd.print(" Welcome");

lcd.setCursor(0,2);
lcd.print(" Youtube");
delay(500);
lcd.clear();
}

void loop(){
```

```
// Read the value from gas sensor and button
gasLevel = analogRead(gasPin);
buttonState = digitalRead(buttonPin);

// call the function for gas detection and button work
gasDetected(gasLevel);
buzzer(gasLevel);
exhaustFanOn(buttonState);
}
// Gas Leakage Detection & Automatic Alarm and Fan ON
void gasDetected(float gasLevel){
if(gasLevel >= 300){
digitalWrite(buzzPin,HIGH);
digitalWrite(ledPin,HIGH);
digitalWrite(fan,HIGH);
lcd.setCursor(0,0);

lcd.print("GAS:");

lcd.print(gasLevel);
lcd.setCursor(0,2);
lcd.print("FAN ON");
delay(1000);
lcd.clear();
}else{

digitalWrite(ledPin,LOW);
digitalWrite(buzzPin,LOW);
digitalWrite(fan,LOW);
lcd.setCursor(0,0);
lcd.print("GAS:");
lcd.print(gasLevel);
lcd.setCursor(0,2);
lcd.print("FAN OFF");
delay(1000);
lcd.clear();
```

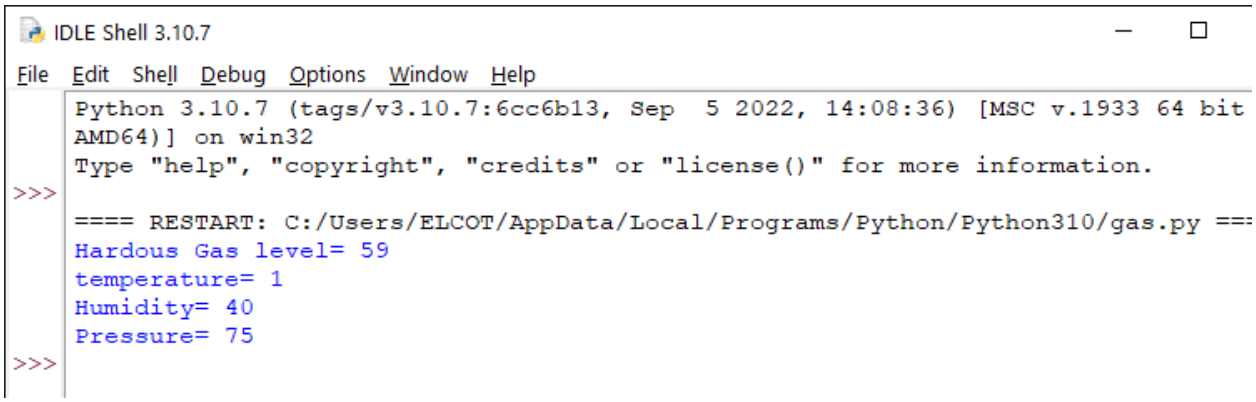
```
}
}

//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();
}
```

OUTPUT:


IDLE Shell 3.10.7
File Edit Shell Debug Options Window Help
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit
AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/ELCOT/AppData/Local/Programs/Python/Python310/gas.py ===
Hardous Gas level= 59
temperature= 1
Humidity= 40
Pressure= 75
>>>