ASSIGNMENT 1

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PROJECT NAME	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

Code

```
int LED1 = 12;

int LED2 = 11

int buzzer = 10;

int smoke = A5;

int bulb = 2;

int fan = 3;

int smokeThreshold = 500;

int inputPir = 9;

int baselineTemp = 0;

int celsius = 0;

int val = 0;


void setup() {

  pinMode(LED1, OUTPUT);

  pinMode(LED2, OUTPUT);

  pinMode(buzzer, OUTPUT);

  pinMode(smoke, INPUT);

  pinMode(inputPir, INPUT);

  pinMode(bulb, OUTPUT);

  pinMode(fan, OUTPUT);

  Serial.begin(9600);

}
```

```
void loop() {
 int analogSensor = analogRead(smoke);

 val = digitalRead(inputPir);

 baselineTemp = 40;

 celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);
 Serial.print(" TEMP: ");
 Serial.print(celsius);
 Serial.print(" C, ");

 if (celsius < 25) {
  digitalWrite(fan, LOW);
 }
 if (celsius > 25) {
  digitalWrite(fan, HIGH);
 }
 Serial.print("Co2: ");
 Serial.print(analogSensor);

 if (analogSensor > smokeThreshold)
 {
  digitalWrite(LED1, HIGH);
  digitalWrite(LED2, LOW);
  tone(buzzer, 1000, 350);
 }
 else
 {
  digitalWrite(LED1, LOW);
```

```
  digitalWrite(LED2, HIGH);
  noTone(buzzer);
 }
 delay(100);
 Serial.print(", PIR: ");
 Serial.println(val);
 if(val == HIGH)
  {
    digitalWrite(bulb, HIGH);
    delay(2000);
          }
 else
          {
    digitalWrite(bulb, LOW);
    delay(300);
          }
}
```