DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM

Team Members	1)VIGNESHWARAN S (Team leader) 2)SAMBATH N 3)SANJAI P 4)SURESH KUMAR M
Team ID	PNT2022TMID21596
Project Name	**Gas leakage monitoring and alerting system**

DEVELOP THE PYTHON CODE

```
#include <LiquidCrystal.h>

LiquidCrystal lcd(7, 6, 5, 4, 3, 2);

#include <SoftwareSerial.h>

SoftwareSerial mySerial(9, 10);

int gasValue = A0; // smoke / gas sensor connected with analog pin A1 of the arduino / mega.

int data = 0;

void setup()

{

randomSeed(analogRead(0)); mySerial.begin(9600); // Setting the

baud rate of GSM Module Serial.begin(9600); // Setting the baud rate

of Serial Monitor (Arduino) lcd.begin(16,2);

pinMode(gasValue, INPUT);

lcd.print (" Gas Leakage ");

lcd.setCursor(0,1); lcd.print

(" Detector Alarm ");

delay(3000); lcd.clear();

}

void loop()

{

data = analogRead(gasValue);

Serial.print("Gas Level: ");

Serial.println(data);
```

```
lcd.print ("Gas Scan is ON");
lcd.setCursor(0,1);
lcd.print("Gas Level: ");
lcd.print(data); delay(1000);
if ( data > 500) //
{
SendMessage();
Serial.print("Gas detect alarm");
lcd.clear(); lcd.setCursor(0,0);
lcd.print("Gas Level Exceed");
lcd.setCursor(0,1);
lcd.print("SMS Sent");
delay(1000);
 }
else
{
Serial.print("Gas Level Low");
lcd.clear(); lcd.setCursor(0,0);
lcd.print("Gas Level Normal");
delay(1000);
}
lcd.clear();
}
void SendMessage()
{
Serial.println("I am in send"); mySerial.println("AT+CMGF=1"); //Sets the GSM Module in
Text Mode delay(1000); // Delay of 1000 milli seconds or 1 second
mySerial.println("AT+CMGS=\"+91900xxxxxxx\"\r"); // Replace x with mobile number
delay(1000); mySerial.println("Excess Gas Detected. Open Windows");// The SMS text you
want to send delay(100); mySerial.println((char)26);// ASCII code of CTRL+Z delay(1000);
}
```