**[DEVELOP A PYTHON SCRIPT TO PUBLISH AND SUBSCRIBE TO IBM IOT PLATFORM](https://careereducation.smartinternz.com/Student/guided_project_workspace/17420" \l "collapse3)**

**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);

}