

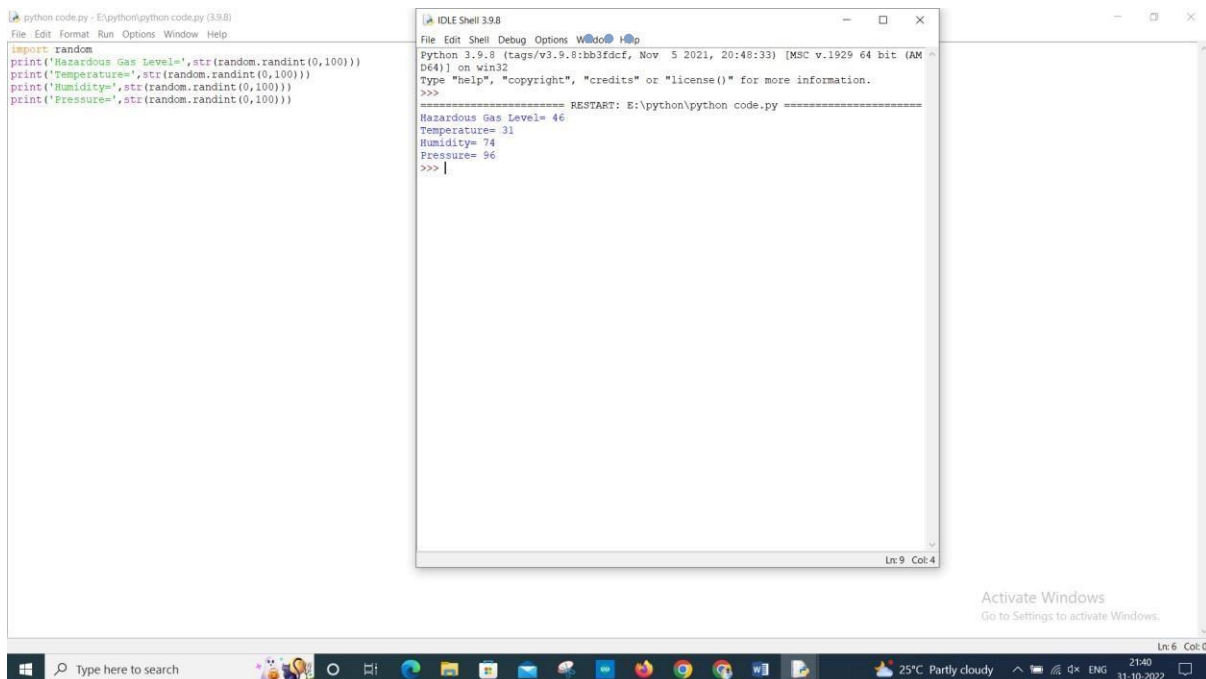
PYTHON CODE (GAS, TEMPERATURE, HUMIDITY, PRESSURE)

Date	10 th November 2022
Team ID	PNT2022TMID05282
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

PYTHON CODE

```
import random  
print('Hazardous Gas Level=',str(random.randint(0,100)))  
print('Temperature=',str(random.randint(0,100)))  
print('Humidity=',str(random.randint(0,100)))  
print('Pressure=',str(random.randint(0,100)))
```

OUTPUT:



The screenshot displays a Windows desktop environment. In the foreground, the 'IDLE Shell 3.9.8' window is open, showing the execution of a Python script. The script's output is as follows:

```
Python 3.9.8 (tags/v3.9.8:bb3fddf, Nov 5 2021, 20:48:33) [MSC v.1929 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: E:\python\python code.py =====  
Hazardous Gas Level= 46  
Temperature= 31  
Humidity= 74  
Pressure= 96  
>>> |
```

In the background, the 'python code.py' editor window is visible, containing the following code:

```
import random  
print('Hazardous Gas Level=',str(random.randint(0,100)))  
print('Temperature=',str(random.randint(0,100)))  
print('Humidity=',str(random.randint(0,100)))  
print('Pressure=',str(random.randint(0,100)))
```

The Windows taskbar at the bottom shows the system clock as 21:40 on 31-10-2022, and the weather as 25°C Partly cloudy.

Overview Action Device Types Interfaces Add Device

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	Nagarajan	Device	Oct 31, 2022 11:38 AM	

Identity **Device Information** **Recent Events** **State** **Logs**

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"Hazardous Gas":61,"Temperature":88,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":20,"Temperature":36,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":79,"Temperature":56,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":52,"Temperature":82,"Humidit...	json	a few seconds ago
event_1	{"Hazardous Gas":26,"Temperature":33,"Humidit...	json	a few seconds ago

Activate Windows
Go to Settings to activate Windows

1 Simulation running

The screenshot displays the IoT Central interface. On the left is a navigation sidebar with icons for Overview, Devices, Events, Interfaces, and Settings. The main area shows the 'Recent Events' tab for a device named 'Nagarajan'. A table lists five recent events, each containing JSON payload data for Hazardous Gas, Temperature, Humidity, and Pressure. An overlay window titled 'Device Type: Nagarajan' is open on the right, showing the 'Events' configuration page. This page includes fields for 'Event type name' (set to 'event_1'), a 'Schedule' dropdown (set to 'Every Minute'), and a 'Payload' editor. The payload editor contains a JSON object with random values for the sensor readings.

Event	Value	Format	Last Received
event_1	{"Hazardous Gas":57,"Temperature":98,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":3,"Temperature":35,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":69,"Temperature":74,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":85,"Temperature":51,"Humidity":...}	json	a few seconds ago
event_1	{"Hazardous Gas":92,"Temperature":35,"Humidity":...}	json	a few seconds ago

```
{
  "Hazardous Gas": random(0, 100),
  "Temperature": random(0, 100),
  "Humidity": random(0, 100),
  "Pressure": random(0, 100)
}
```