

DEVELOP A PYTHON SCRIPT

TEAM ID	PNT2022TMID33339
PROJECT NAME	Project - IOT Based Safety Gadget for Child Safety Monitoring and Notification

The image shows a Windows desktop environment. On the left, a file editor window displays a Python script named 'KJ.py'. The script imports 'time', 'sys', 'ibmiotf.device', and 'random'. It defines IBM Watson IoT credentials and a URL. A function 'myCommandCallback' is defined to handle incoming commands. A 'while True' loop generates random sensor data (gas, temperature, humidity, pressure) and prints a success message. On the right, an 'IDLE Shell 3.10.7' window shows the output of the script, displaying multiple lines of 'Published data Successfully' messages with varying sensor values. The Windows taskbar at the bottom shows the search bar, task view button, and several open applications including Edge, File Explorer, Mail, and the IDE.

```
import time
import sys
import ibmiotf.device
import random

#MY IBM Watson Device Credentials
organization = "z2nb9k"
deviceType = "raspberrypi"
deviceId = "123"
authMethod = "token"
authToken = "1234567890"
url="https://z2nb9k.internetofthings.ibmcloud.com/dashboard/devices/browse"
# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    m=cmd.data['command']
    client = ibmiotf.device.Client(config=myConfig,logHandlers=None)
    client.connect()
while True:
    gas=random.randint(0,100)
    temp=random.randint(0,100)
    hum=random.randint(0,100)
    pre=random.randint(0,100)
    myData={'Hazardous Gas':gas, 'Temperature':temp, 'Humidity':hum,
    'Pressure':pre }
    print("Published data Successfully: %s", myData)
```

Published data Successfully: %s ('Hazardous Gas': 32, 'Temperature': 63, 'Humidity': 31, 'Pressure': 18)
Published data Successfully: %s ('Hazardous Gas': 8, 'Temperature': 80, 'Humidity': 31, 'Pressure': 45)
Published data Successfully: %s ('Hazardous Gas': 47, 'Temperature': 79, 'Humidity': 18, 'Pressure': 45)
Published data Successfully: %s ('Hazardous Gas': 55, 'Temperature': 86, 'Humidity': 72, 'Pressure': 18)
Published data Successfully: %s ('Hazardous Gas': 29, 'Temperature': 51, 'Humidity': 16, 'Pressure': 4)
Published data Successfully: %s ('Hazardous Gas': 42, 'Temperature': 50, 'Humidity': 75, 'Pressure': 73)
Published data Successfully: %s ('Hazardous Gas': 15, 'Temperature': 13, 'Humidity': 92, 'Pressure': 12)
Published data Successfully: %s ('Hazardous Gas': 18, 'Temperature': 85, 'Humidity': 34, 'Pressure': 30)
Published data Successfully: %s ('Hazardous Gas': 0, 'Temperature': 61, 'Humidity': 50, 'Pressure': 99)
Published data Successfully: %s ('Hazardous Gas': 77, 'Temperature': 30, 'Humidity': 25, 'Pressure': 39)
Published data Successfully: %s ('Hazardous Gas': 78, 'Temperature': 18, 'Humidity': 56, 'Pressure': 30)
Published data Successfully: %s ('Hazardous Gas': 16, 'Temperature': 93, 'Humidity': 45, 'Pressure': 52)
Published data Successfully: %s ('Hazardous Gas': 43, 'Temperature': 57, 'Humidity': 3, 'Pressure': 43)
Published data Successfully: %s ('Hazardous Gas': 46, 'Temperature': 64, 'Humidity': 31, 'Pressure': 38)
Published data Successfully: %s ('Hazardous Gas': 38, 'Temperature': 5, 'Humidity': 60, 'Pressure': 61)
Published data Successfully: %s ('Hazardous Gas': 72, 'Temperature': 88, 'Humidity': 60, 'Pressure': 80)
Published data Successfully: %s ('Hazardous Gas': 80, 'Temperature': 2, 'Humidity': 17, 'Pressure': 53)
Published data Successfully: %s ('Hazardous Gas': 35, 'Temperature': 76, 'Humidity': 54, 'Pressure': 32)
Published data Successfully: %s ('Hazardous Gas': 32, 'Temperature': 54, 'Humidity': 62, 'Pressure': 10)
Published data Successfully: %s ('Hazardous Gas': 17, 'Temperature': 23, 'Humidity': 25, 'Pressure': 70)

THE PYTHON IS DEVELOPED SUCCESSFULLY.