

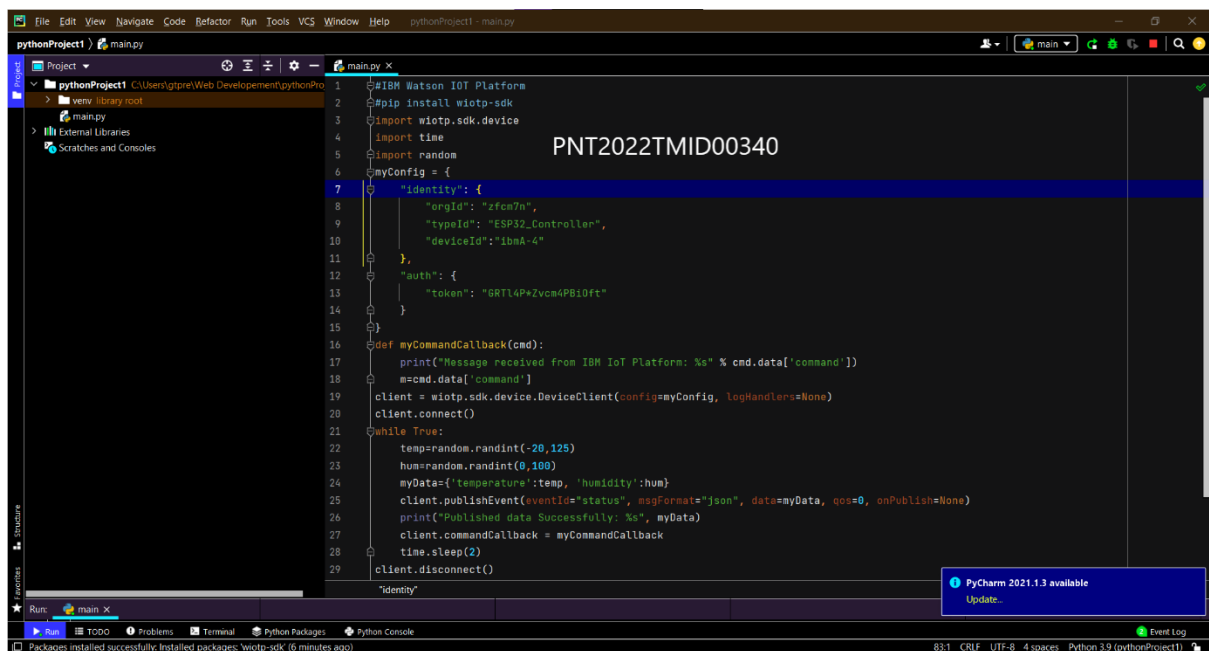
# Publish Data to the IBM Cloud

Team ID	PNT2022TMID00340
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

Python Code:

```
#IBM Watson IOT Platform
#pip install wiotp-sdk
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "zfc7n",
        "typeId": "ESP32_Controller",
        "deviceId": "ibmA-4"
    },
    "auth": {
        "token": "GRTI4P*Zvcm4PBiOf"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()
while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

## Python Code:

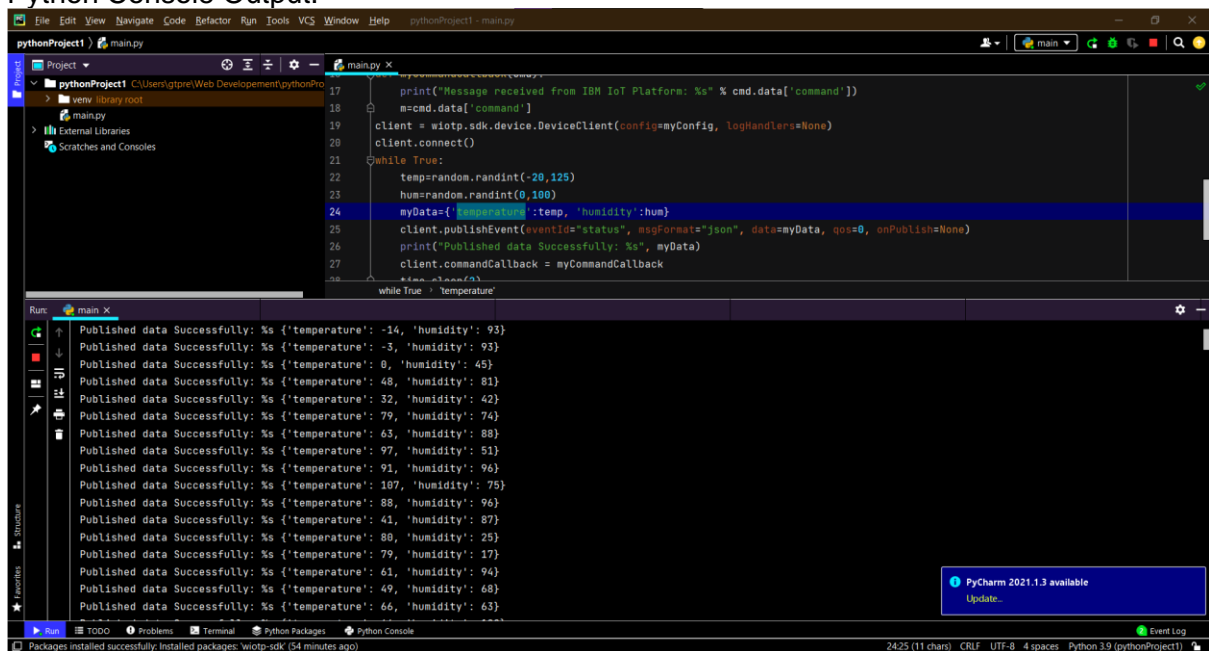


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13        "token": "GR14Pzvcw4P810ft"
14    }
15 }
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29     client.disconnect()
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```

PNT2022TMID00340

PyCharm 2021.1.3 available  
Update...

## Python Console Output:



```
17 print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
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26     print("Published data Successfully: %s", myData)
27     client.commandCallback = myCommandCallback
28     time.sleep(2)
29     client.disconnect()
30     "identity"
```

Published data Successfully: %s {'temperature': -14, 'humidity': 93}  
Published data Successfully: %s {'temperature': -3, 'humidity': 93}  
Published data Successfully: %s {'temperature': 0, 'humidity': 45}  
Published data Successfully: %s {'temperature': 48, 'humidity': 81}  
Published data Successfully: %s {'temperature': 32, 'humidity': 42}  
Published data Successfully: %s {'temperature': 79, 'humidity': 74}  
Published data Successfully: %s {'temperature': 63, 'humidity': 88}  
Published data Successfully: %s {'temperature': 97, 'humidity': 51}  
Published data Successfully: %s {'temperature': 91, 'humidity': 96}  
Published data Successfully: %s {'temperature': 107, 'humidity': 75}  
Published data Successfully: %s {'temperature': 88, 'humidity': 96}  
Published data Successfully: %s {'temperature': 41, 'humidity': 87}  
Published data Successfully: %s {'temperature': 80, 'humidity': 25}  
Published data Successfully: %s {'temperature': 79, 'humidity': 17}  
Published data Successfully: %s {'temperature': 61, 'humidity': 94}  
Published data Successfully: %s {'temperature': 49, 'humidity': 68}  
Published data Successfully: %s {'temperature': 66, 'humidity': 63}

PyCharm 2021.1.3 available  
Update...

## IBM WATSON PLATFORM DEVICE-EVENT LOG:

The screenshot shows the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. The main content area displays a table of recent events for the device PNT2022TMID00340. The table has four columns: Event, Value, Format, and Last Received. The events are status updates with JSON payloads containing temperature and humidity data. The bottom of the page shows pagination controls indicating 1 of 1 page.

Event	Value	Format	Last Received
status	{"temperature":1,"humidity":36}	json	a few seconds ago
status	{"temperature":20,"humidity":70}	json	a few seconds ago
status	{"temperature":41,"humidity":64}	json	a few seconds ago
status	{"temperature":30,"humidity":40}	json	a few seconds ago
status	{"temperature":100,"humidity":9}	json	a few seconds ago

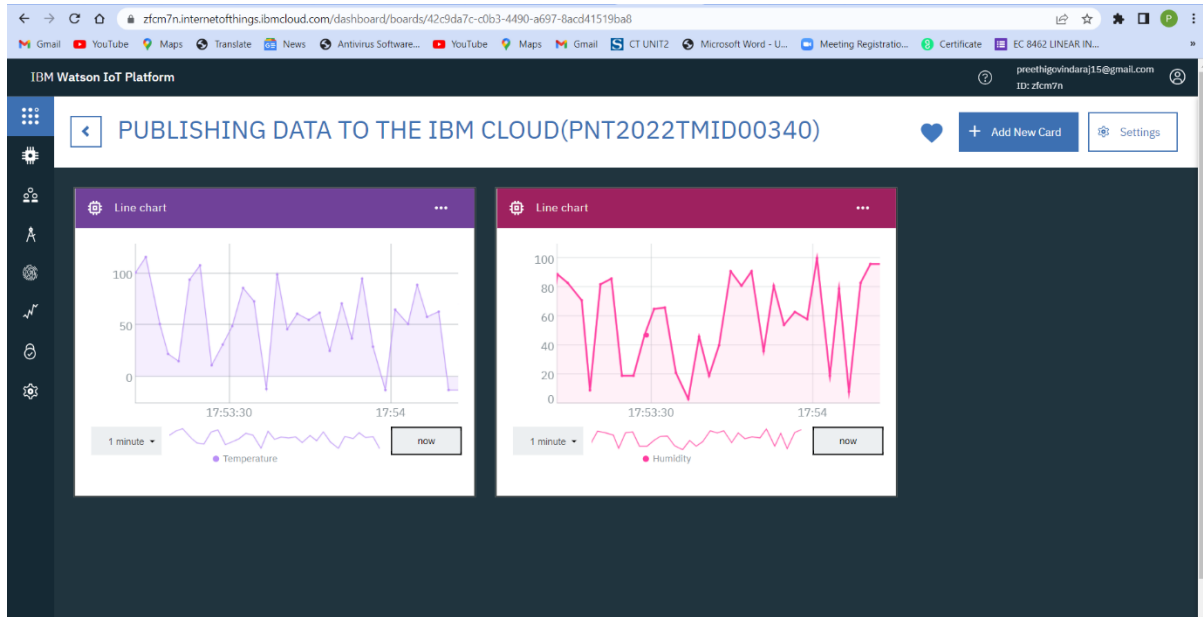
## IBM WATSON PLATFORM DEVICE-EVENT PAYLOAD:

The screenshot shows the IBM Watson IoT Platform interface with an 'Event Payload' modal window open. The modal displays the event name 'PNT2022TMID00340' and the status 'status'. The 'Time Received' is 'Nov 10, 2022 5:58 PM'. The payload is a JSON object: 

```
{ 1: { 2: "temperature": 85, 3: "humidity": 18 4: }}
```

. The background shows the same event log table as the previous screenshot.

## IBM WATSON PLATFORM DEVICE-BOARD:



## IBM CLOUDANT DB DATA LOG:

The screenshot displays the IBM Cloudant database interface for the database 'noderedtgImn20221106/\_all\_docs'. The interface shows a table view of the data, with columns for \_id, humidity, temperature, Gas Sensor, and Humidity. The data is filtered to show documents with a specific ID pattern.

_id	humidity	temperature	Gas Sensor	Humidity
0096ab1244940360661f...	9	79		
0096ab1244940360661f...	68	122		
0096ab1244940360661f...	6	109		
0096ab1244940360661f...	72	39		
0096ab1244940360661f...	44	105		
0096ab1244940360661f...	37	12		
0096ab1244940360661f...	18	-5		
0096ab1244940360661f...	81	5		
0096ab1244940360661f...	25	90		
0096ab1244940360661f...	87	11		
0096ab1244940360661f...	48	49		
0096ab1244940360661f...	56	107		

The interface includes a sidebar with navigation options: All Documents, Query, Permissions, Changes, Design Documents, and Library. The top bar shows the document ID and options for JSON, CSV, and other formats. The bottom bar indicates 'Showing 5 of 8 columns' and 'Showing document 1 - 20'.