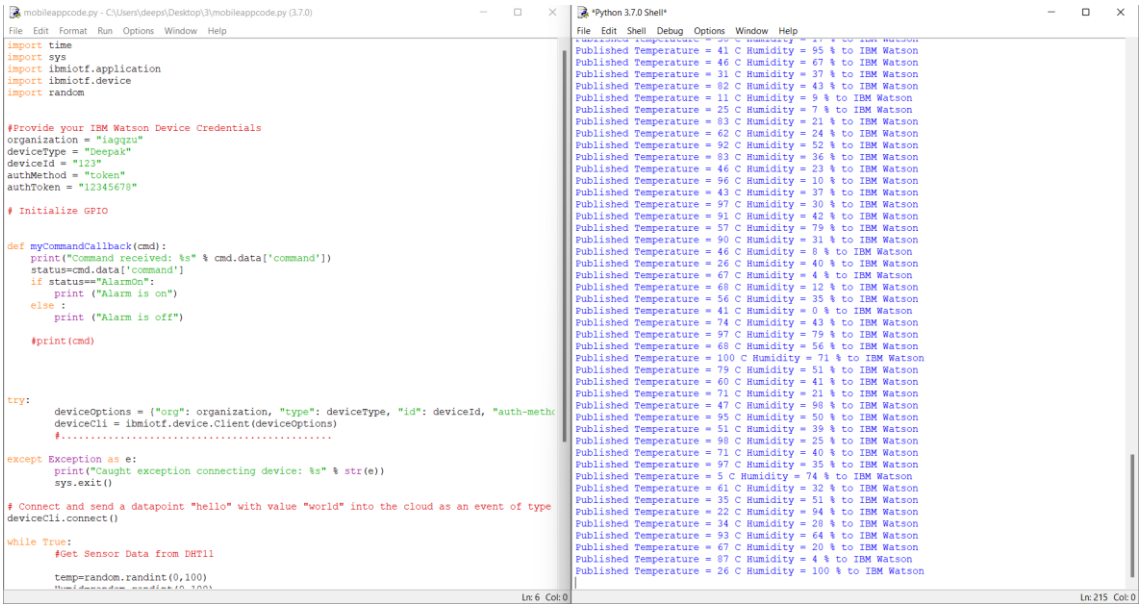
SPRINT 4

Date	14 November 2022
Team ID	PNT2022TMID33005
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

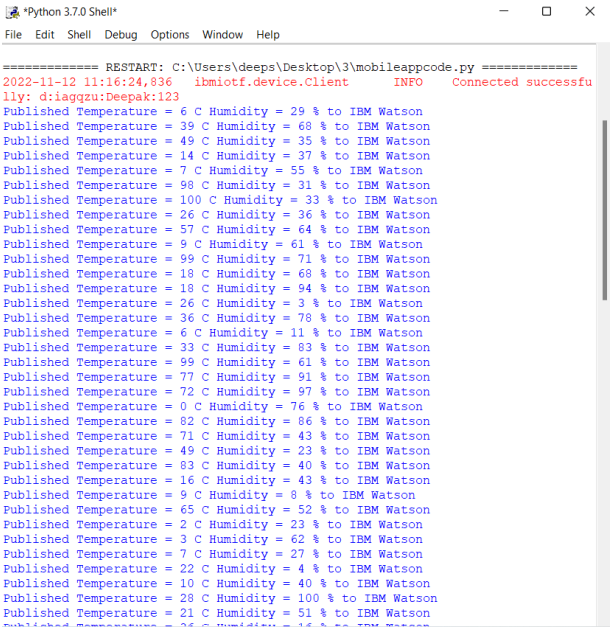
PYTHON CODE:



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


#Provide your IBM Watson Device Credentials
organization = "iaqqzu"
deviceType = "Deepak"
deviceId = "123"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO


def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="AlarmOn":
        print ("Alarm is on")
    else :
        print ("Alarm is off")

    #print(cmd)



try:
        deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-metho
        deviceCli = ibmiotf.device.Client(deviceOptions)
        #.....................................................

except Exception as e:
        print("Caught exception connecting device: %s" % str(e))
        sys.exit()

# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
deviceCli.connect()

while True:
        #Get Sensor Data from DHT11

        temp=random.randint(0,100)
```

```
Published Temperature = 41 C Humidity = 95 % to IBM Watson
Published Temperature = 46 C Humidity = 67 % to IBM Watson
Published Temperature = 31 C Humidity = 37 % to IBM Watson
Published Temperature = 82 C Humidity = 43 % to IBM Watson
Published Temperature = 11 C Humidity = 9 % to IBM Watson
Published Temperature = 25 C Humidity = 7 % to IBM Watson
Published Temperature = 83 C Humidity = 21 % to IBM Watson
Published Temperature = 62 C Humidity = 24 % to IBM Watson
Published Temperature = 92 C Humidity = 52 % to IBM Watson
Published Temperature = 83 C Humidity = 36 % to IBM Watson
Published Temperature = 46 C Humidity = 23 % to IBM Watson
Published Temperature = 96 C Humidity = 10 % to IBM Watson
Published Temperature = 43 C Humidity = 37 % to IBM Watson
Published Temperature = 97 C Humidity = 30 % to IBM Watson
Published Temperature = 91 C Humidity = 42 % to IBM Watson
Published Temperature = 57 C Humidity = 79 % to IBM Watson
Published Temperature = 90 C Humidity = 31 % to IBM Watson
Published Temperature = 46 C Humidity = 8 % to IBM Watson
Published Temperature = 26 C Humidity = 40 % to IBM Watson
Published Temperature = 67 C Humidity = 4 % to IBM Watson
Published Temperature = 68 C Humidity = 12 % to IBM Watson
Published Temperature = 56 C Humidity = 35 % to IBM Watson
Published Temperature = 41 C Humidity = 0 % to IBM Watson
Published Temperature = 74 C Humidity = 43 % to IBM Watson
Published Temperature = 97 C Humidity = 79 % to IBM Watson
Published Temperature = 68 C Humidity = 56 % to IBM Watson
Published Temperature = 100 C Humidity = 71 % to IBM Watson
Published Temperature = 79 C Humidity = 51 % to IBM Watson
Published Temperature = 60 C Humidity = 41 % to IBM Watson
Published Temperature = 71 C Humidity = 21 % to IBM Watson
Published Temperature = 47 C Humidity = 98 % to IBM Watson
Published Temperature = 95 C Humidity = 50 % to IBM Watson
Published Temperature = 51 C Humidity = 39 % to IBM Watson
Published Temperature = 98 C Humidity = 25 % to IBM Watson
Published Temperature = 71 C Humidity = 40 % to IBM Watson
Published Temperature = 97 C Humidity = 35 % to IBM Watson
Published Temperature = 5 C Humidity = 74 % to IBM Watson
Published Temperature = 61 C Humidity = 32 % to IBM Watson
Published Temperature = 35 C Humidity = 51 % to IBM Watson
Published Temperature = 22 C Humidity = 94 % to IBM Watson
Published Temperature = 34 C Humidity = 28 % to IBM Watson
Published Temperature = 93 C Humidity = 64 % to IBM Watson
Published Temperature = 67 C Humidity = 20 % to IBM Watson
Published Temperature = 87 C Humidity = 4 % to IBM Watson
Published Temperature = 26 C Humidity = 100 % to IBM Watson
```

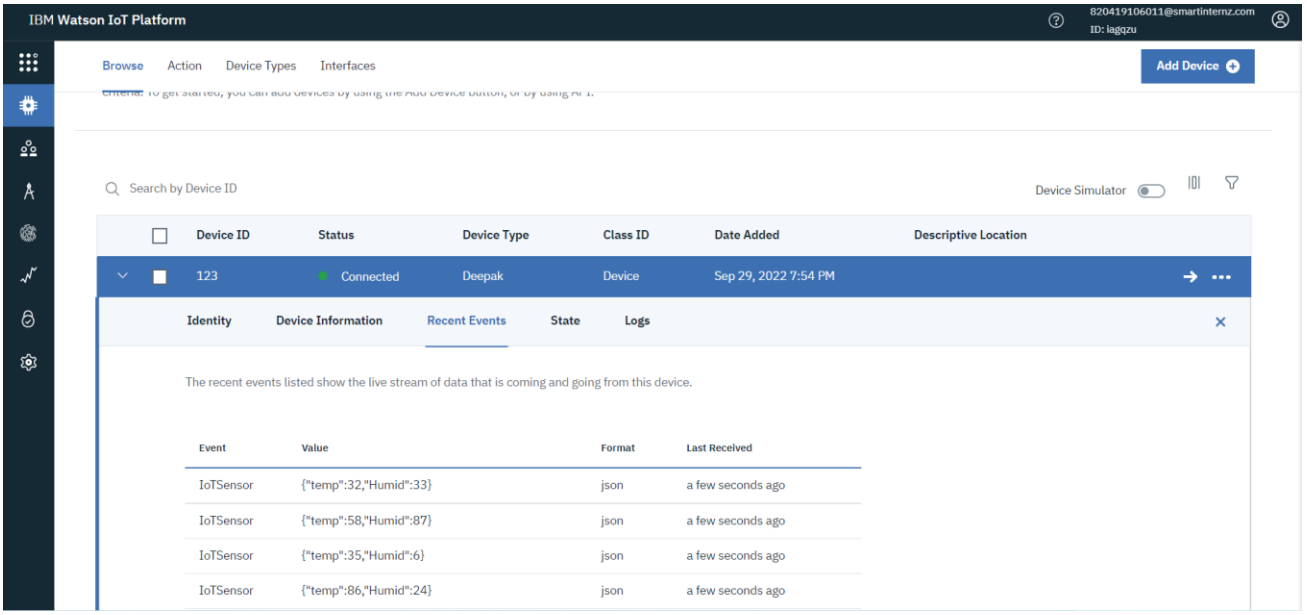
PYTHON OUTPUT:



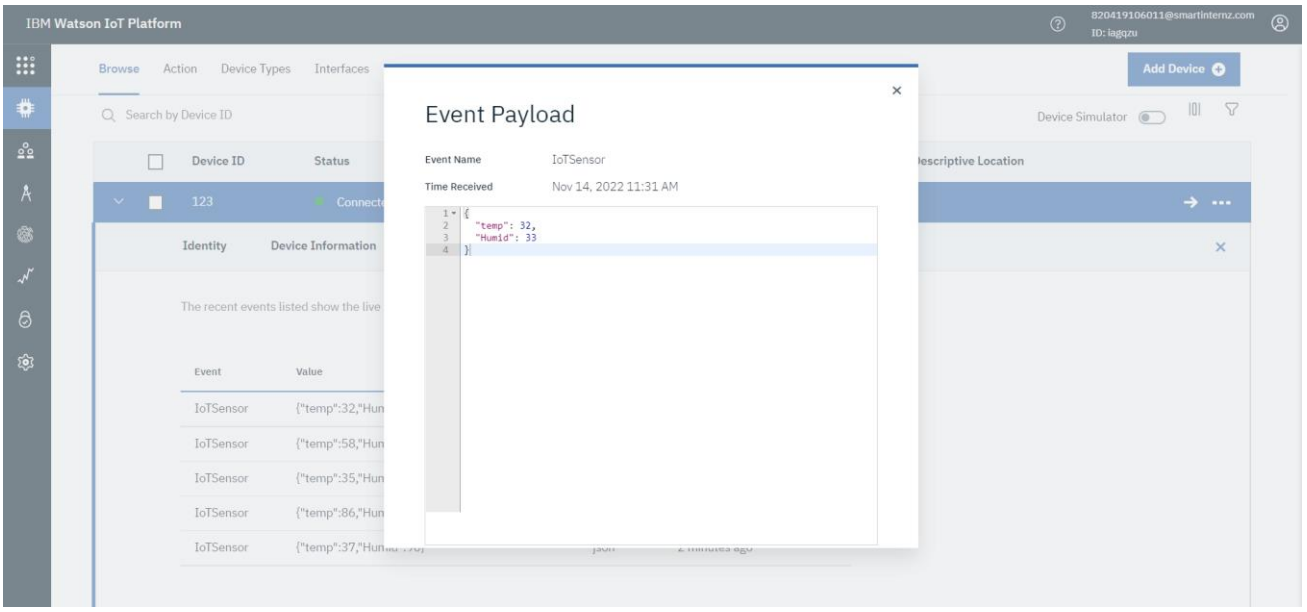
```
========== RESTART: C:\Users\deeps\Desktop\3\mobileappcode.py ==========
2022-11-12 11:16:24,836   ibmiotf.device.Client      INFO    Connected successfu
lly: d:iaqqzu:Deepak:123
Published Temperature = 6 C Humidity = 29 % to IBM Watson
Published Temperature = 39 C Humidity = 68 % to IBM Watson
Published Temperature = 49 C Humidity = 35 % to IBM Watson
Published Temperature = 14 C Humidity = 37 % to IBM Watson
Published Temperature = 7 C Humidity = 55 % to IBM Watson
Published Temperature = 98 C Humidity = 31 % to IBM Watson
Published Temperature = 100 C Humidity = 33 % to IBM Watson
Published Temperature = 26 C Humidity = 36 % to IBM Watson
Published Temperature = 57 C Humidity = 64 % to IBM Watson
Published Temperature = 9 C Humidity = 61 % to IBM Watson
Published Temperature = 99 C Humidity = 71 % to IBM Watson
Published Temperature = 18 C Humidity = 68 % to IBM Watson
Published Temperature = 18 C Humidity = 94 % to IBM Watson
Published Temperature = 26 C Humidity = 3 % to IBM Watson
Published Temperature = 36 C Humidity = 78 % to IBM Watson
Published Temperature = 6 C Humidity = 11 % to IBM Watson
Published Temperature = 33 C Humidity = 83 % to IBM Watson
Published Temperature = 99 C Humidity = 61 % to IBM Watson
Published Temperature = 77 C Humidity = 91 % to IBM Watson
Published Temperature = 72 C Humidity = 97 % to IBM Watson
Published Temperature = 0 C Humidity = 76 % to IBM Watson
Published Temperature = 82 C Humidity = 86 % to IBM Watson
Published Temperature = 71 C Humidity = 43 % to IBM Watson
Published Temperature = 49 C Humidity = 23 % to IBM Watson
Published Temperature = 83 C Humidity = 40 % to IBM Watson
Published Temperature = 16 C Humidity = 43 % to IBM Watson
Published Temperature = 9 C Humidity = 8 % to IBM Watson
Published Temperature = 65 C Humidity = 52 % to IBM Watson
Published Temperature = 2 C Humidity = 23 % to IBM Watson
Published Temperature = 3 C Humidity = 62 % to IBM Watson
Published Temperature = 7 C Humidity = 27 % to IBM Watson
Published Temperature = 22 C Humidity = 4 % to IBM Watson
Published Temperature = 10 C Humidity = 40 % to IBM Watson
Published Temperature = 28 C Humidity = 100 % to IBM Watson
Published Temperature = 21 C Humidity = 51 % to IBM Watson
```

IBM WATSON PLATFORM ➔

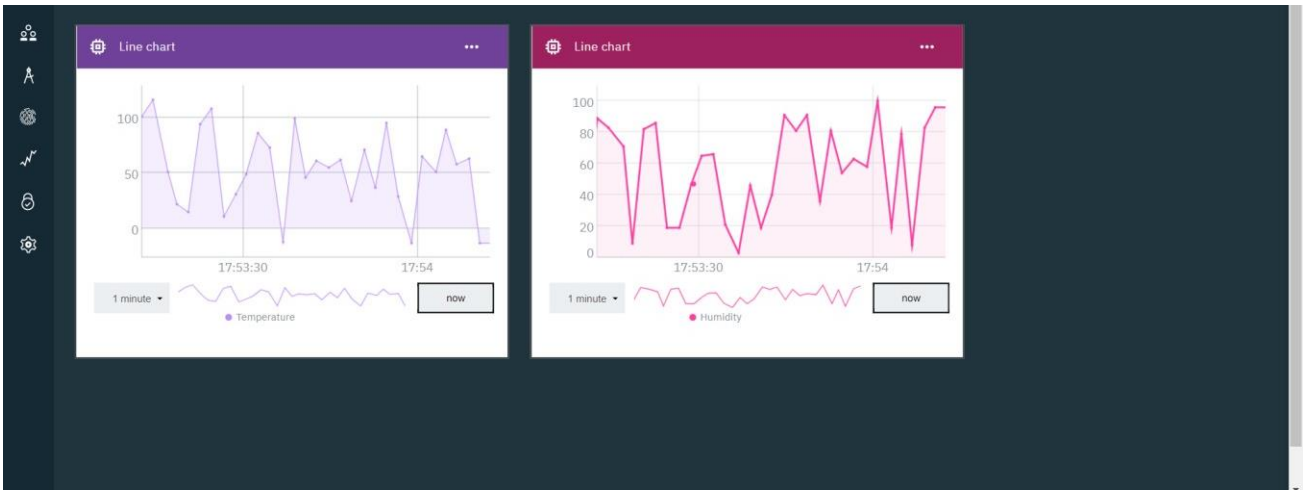
DEVICE EVENT LOG:



DEVICE EVENT PAYLOAD:



DEVICE- BOARD:



IBM CLOUDANT DB LOG: