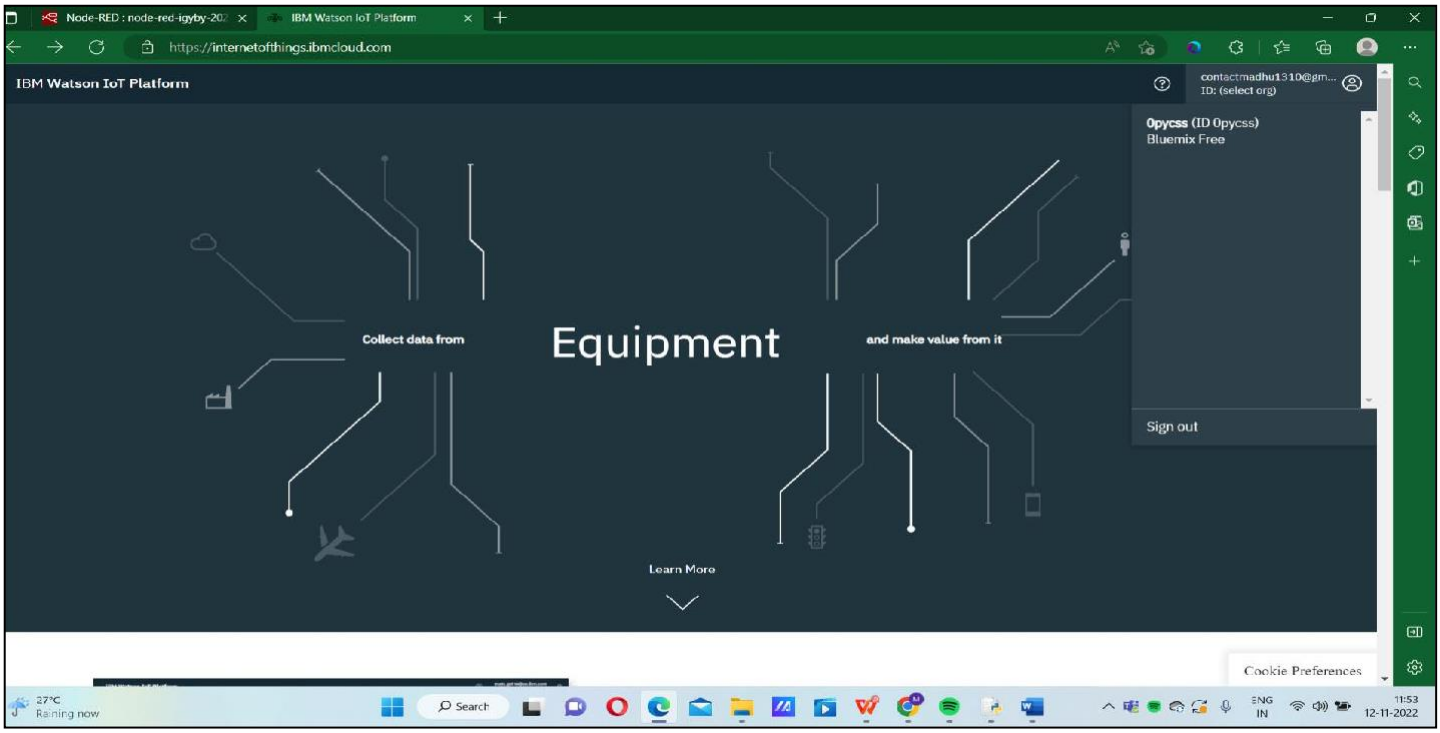
PANIMALAR ENGINEERING COLLEGE

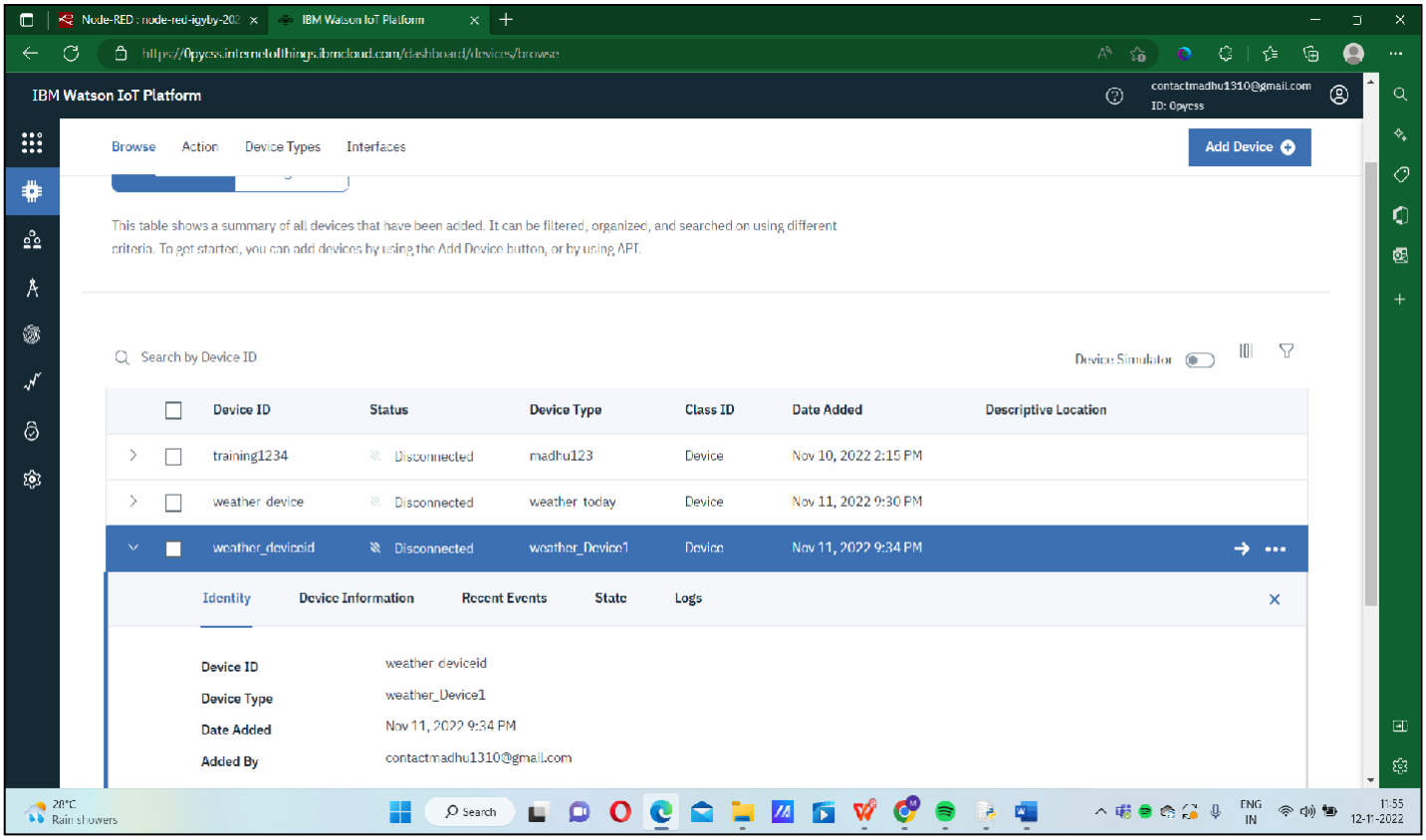
IBM NALAIYATHIRAN

TEAM ID	PNT2022TMID07742
PROJECT NAME	IOT based safety gadget for child safety monitoring and notification
TEAM MEMBERS	U.KEERTHIVASAN M.MUGUNDHAN A.PRAKASH A.UMAMAKESAN

DELIVERY OF SPRINT 2

Creating IBM Cloud Service and IBM WATSON IoT PLATFORM:





Creating and Connecting IBM cloud for Project and Python Code

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random

#Provide your IBM Watson Device Credentials

organization = "0pycss"

deviceType = "weather_Device1"

deviceId = "weather_deviceid"

authMethod = "token"
```

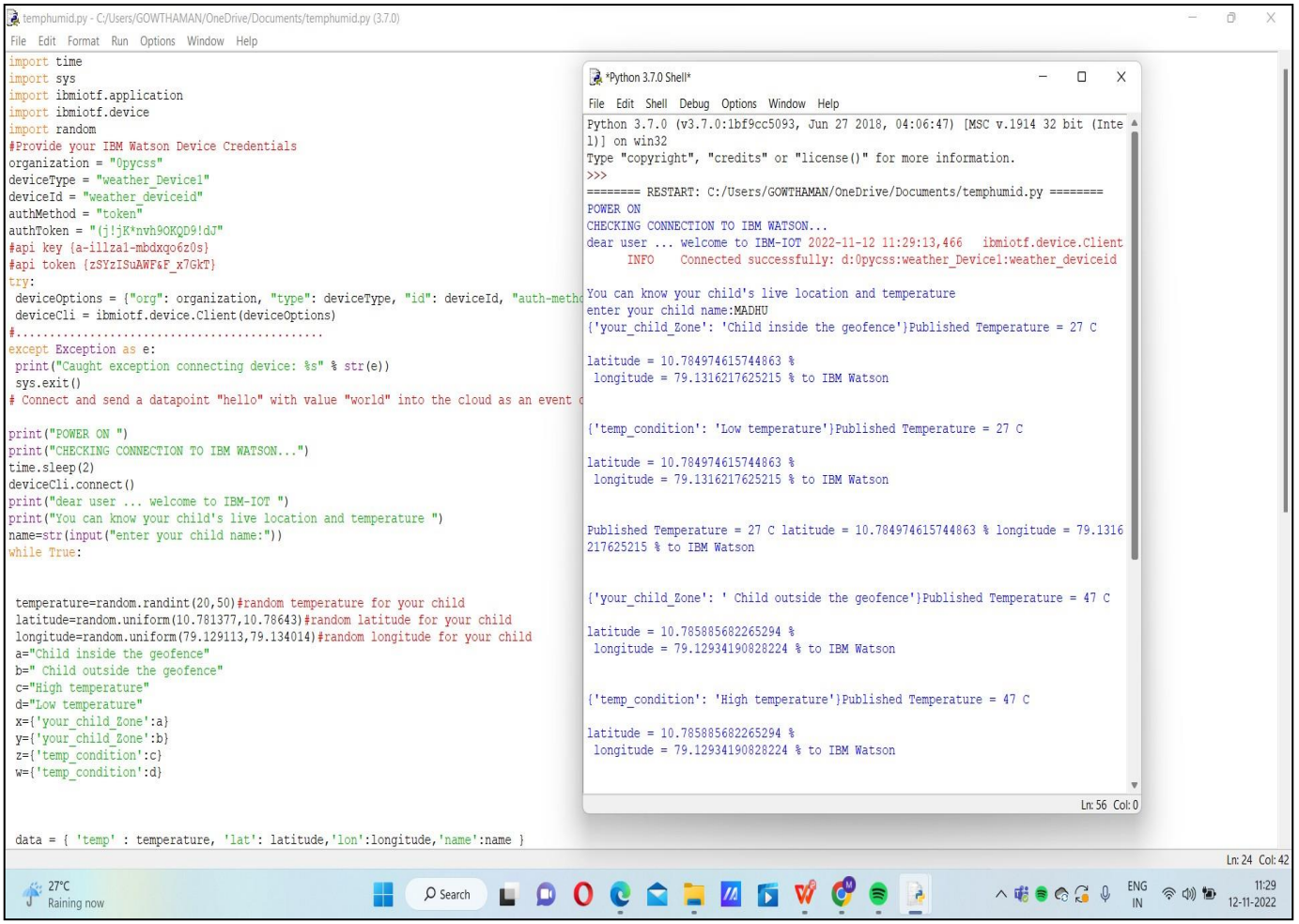
```
authToken = "(j!jK*nvh9OKQD9!dJ"

#api  key  {a-illza1-mbdxq06z0s}

#api token {zSYzISuAWF&F_x7GkT}

try:

 deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}

 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



print("POWER ON ")

print("CHECKING CONNECTION TO IBM WATSON. ")

time.sleep(2)

deviceCli.connect()

print("dear  user ..... welcome to IBM-IOT ")

print("You can know your child's live location and temperature ")

name=str(input("enter your child  name:"))

while True:



 temperature=random.randint(20,50)#random temperature for your child
```

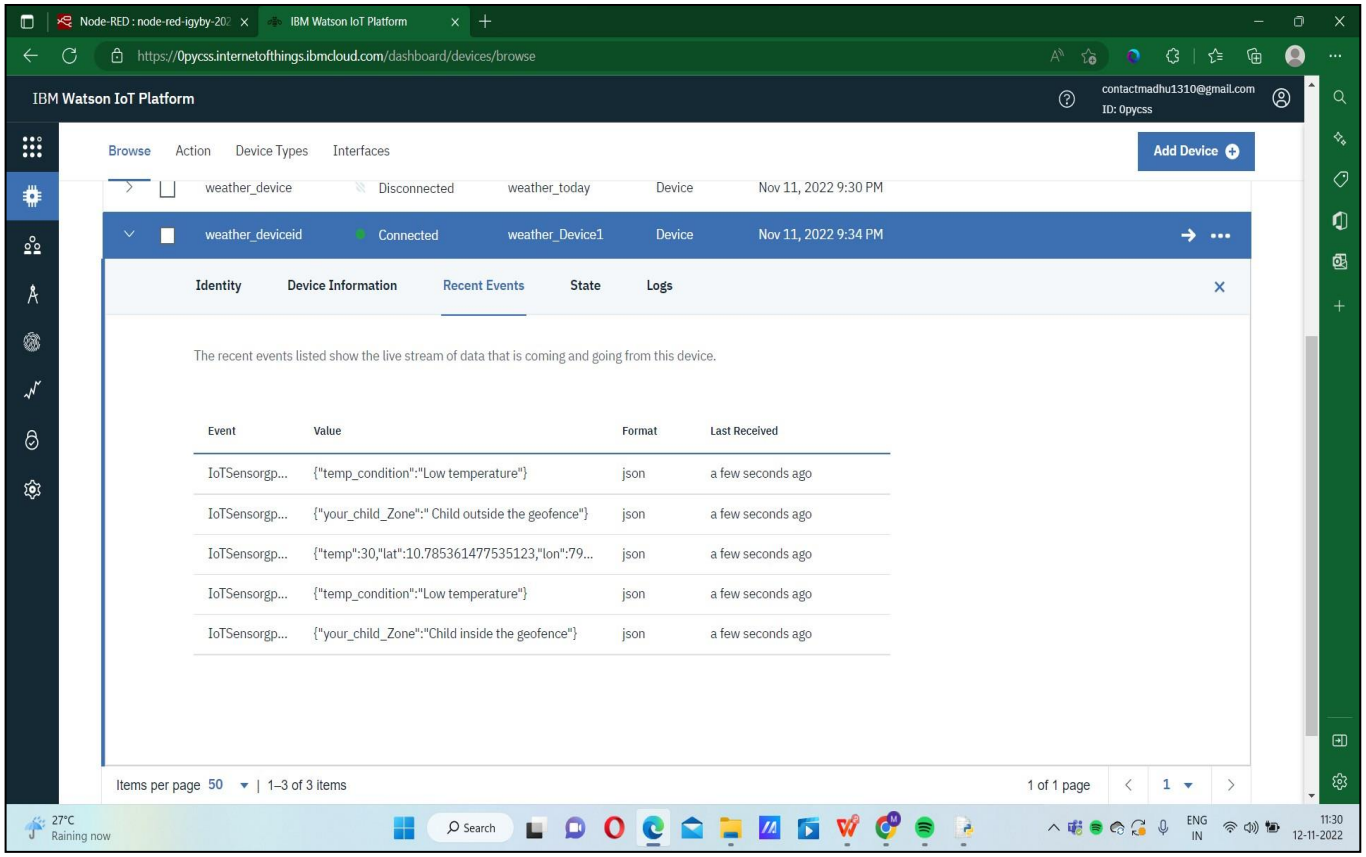
```
 latitude=random.uniform(10.781377,10.78643)#random latitude for your child

 longitude=random.uniform(79.129113,79.134014)#random longitude for your child

 a="Child inside the geofence"

 b=" Child outside the geofence"

 c="High temperature"

 d="Low temperature"

 x={'your_child_Zone':a}

 y={'your_child_Zone':b}

 z={'temp_condition':c}

 w={'temp_condition':d}




 data = { 'temp' : temperature, 'lat': latitude,'lon':longitude,'name':name }

 #print data

 def myOnPublishCallback():

   print ("Published Temperature = %s C" % temperature, "latitude = %s %%" % latitude,
"longitude = %s %%" % longitude, "to IBM Watson")

   print("\n")

 success = deviceCli.publishEvent("IoTSensorgpsdata", "json", data, qos=0,
on_publish=myOnPublishCallback)

 if latitude>=10.78200 and latitude<=10.786000 and longitude >=79.130000 and
longitude <=79.133000:
```

```
deviceCli.publishEvent("IoTSensorgpsdata","json",data=x,qos=0,on_publish=myOnPublis
hCallback)

   print(x)

   print("\n")

 else:



deviceCli.publishEvent("IoTSensorgpsdata","json",data=y,qos=0,on_publish=myOnPublis
hCallback)

  print(y)

  print("\n")


 if (temperature>35):



deviceCli.publishEvent("IoTSensorgpsdata","json",data=z,qos=0,on_publish=myOnPublis
hCallback)

      print(z)

      print("\n")

 else:



deviceCli.publishEvent("IoTSensorgpsdata","json",data=w,qos=0,on_publish=myOnPublis
hCallback)

     print(w)

     print("\n")
```

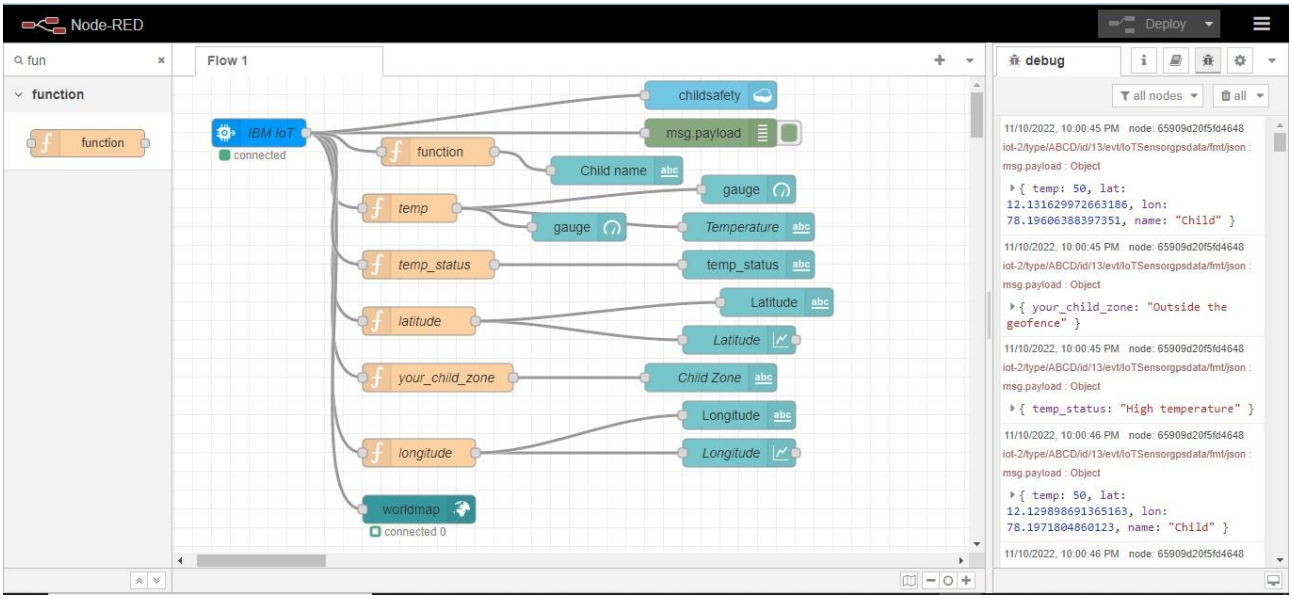
```
 if not success:
    print("Not connected to IoTF")
    print("\n")
 time.sleep(3)
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

Connecting IBM Watson and python Code:





NODE RED CONNECTIONS:



NODE-RED OUPUT: