NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY

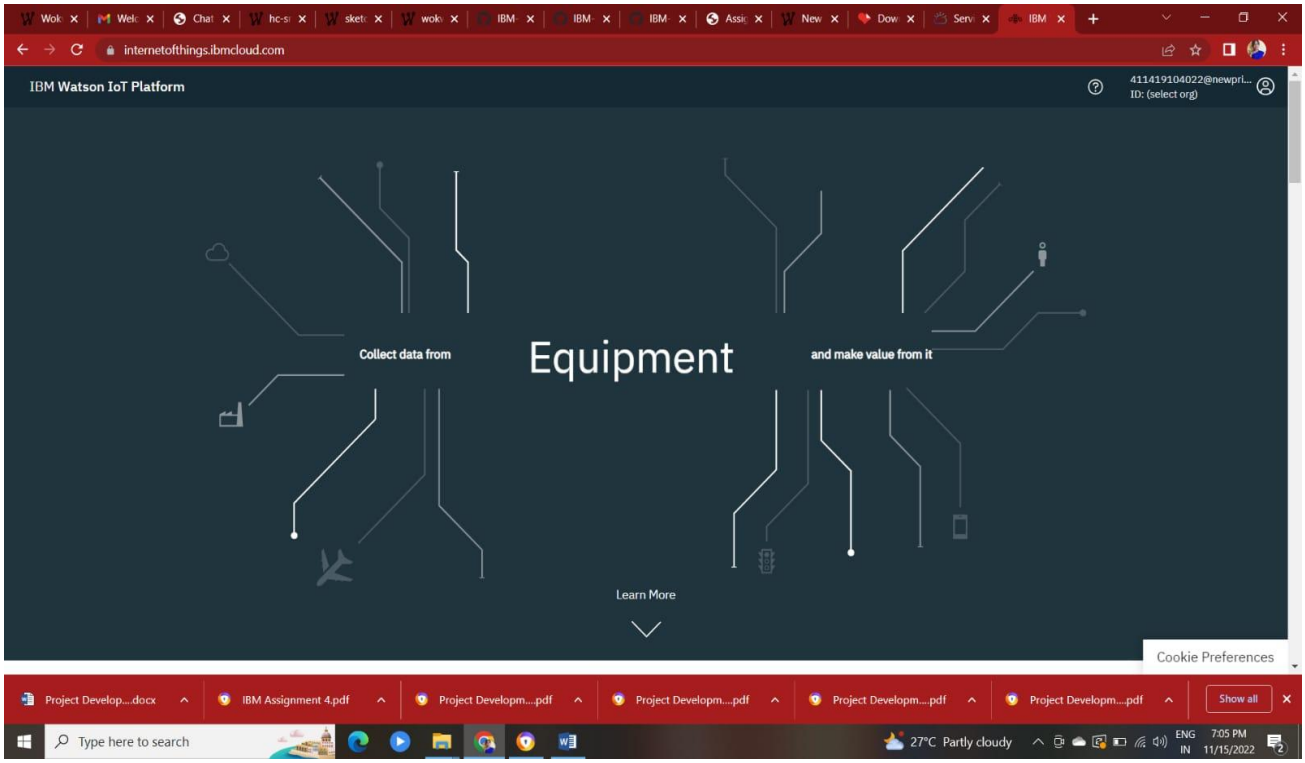
Safety Gadget for Child Safety Monitoring and Notification

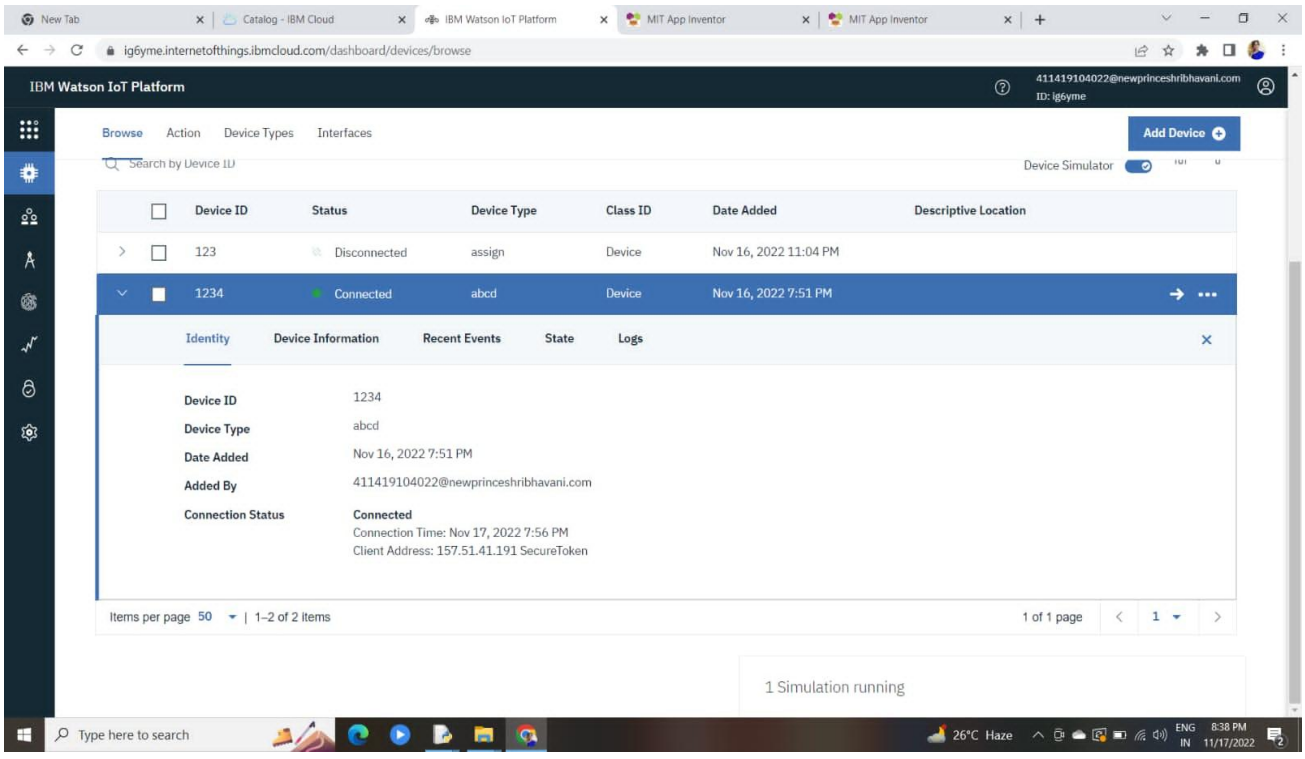
IBM NALAIYATHIRAN

Project Development –Delivery of Sprint 1
Creating and Connecting IBM cloud for Project and Python Code

TITLE	IOT based child safety gadget for child safety monitoring and notification
DOMAIN NAME	INTERNET OF THINGS
TEAM ID	PNT2022TMID37924
TEAM LEAD NAME	M.K.SindhuReshma
TEAM MEMBERS	G Sivaranjani M.K.SnehaReshmi D Vaishnavi
MENTOR	G Simi Margaret

Creating IBM Cloud Service and creating the device:





Creating Python Code:

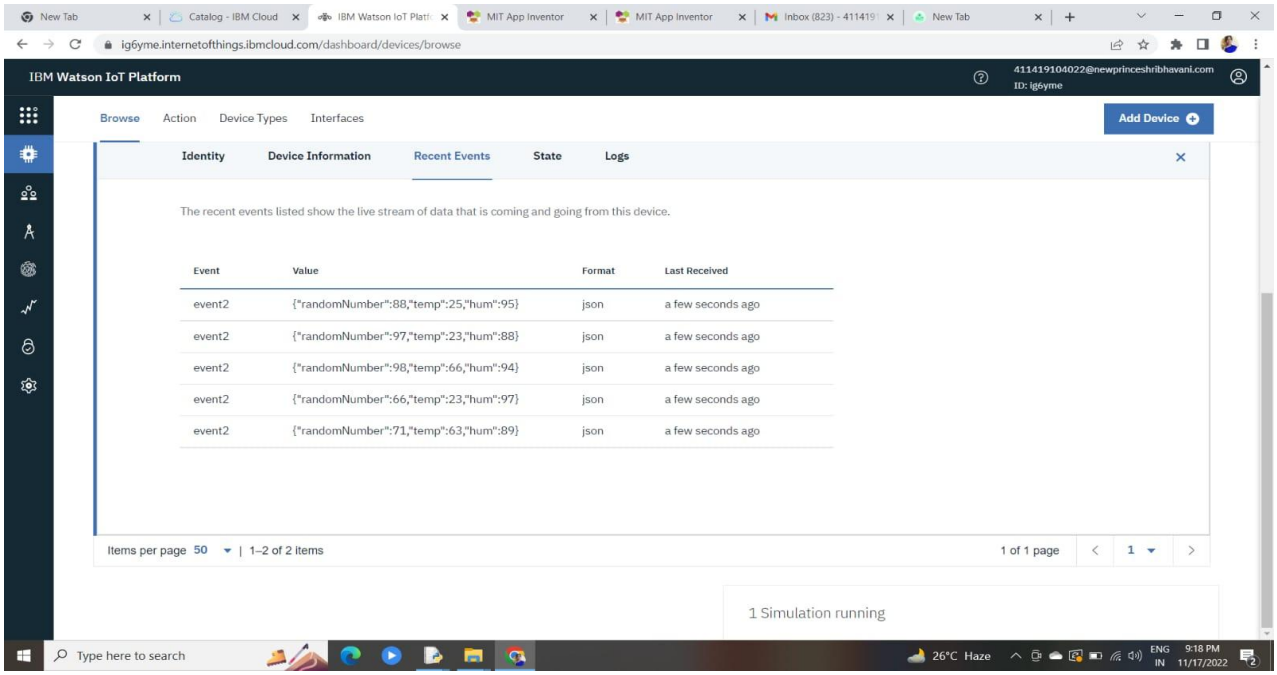
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

#Provide your IBM Watson Device Credentials
organization = "ig6yme"
deviceType = "abcd"
deviceId = "1234"
authMethod = "token"
authToken = "12345678"
#api key {a-ig6yme-bgin8ssogt}

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 "greeting" 10 times
print("power on ")
print("checking connection to waston iot...")
time.sleep(2)
deviceCli.connect()
print("dear user ... welcome to IBM-IOT ")
```

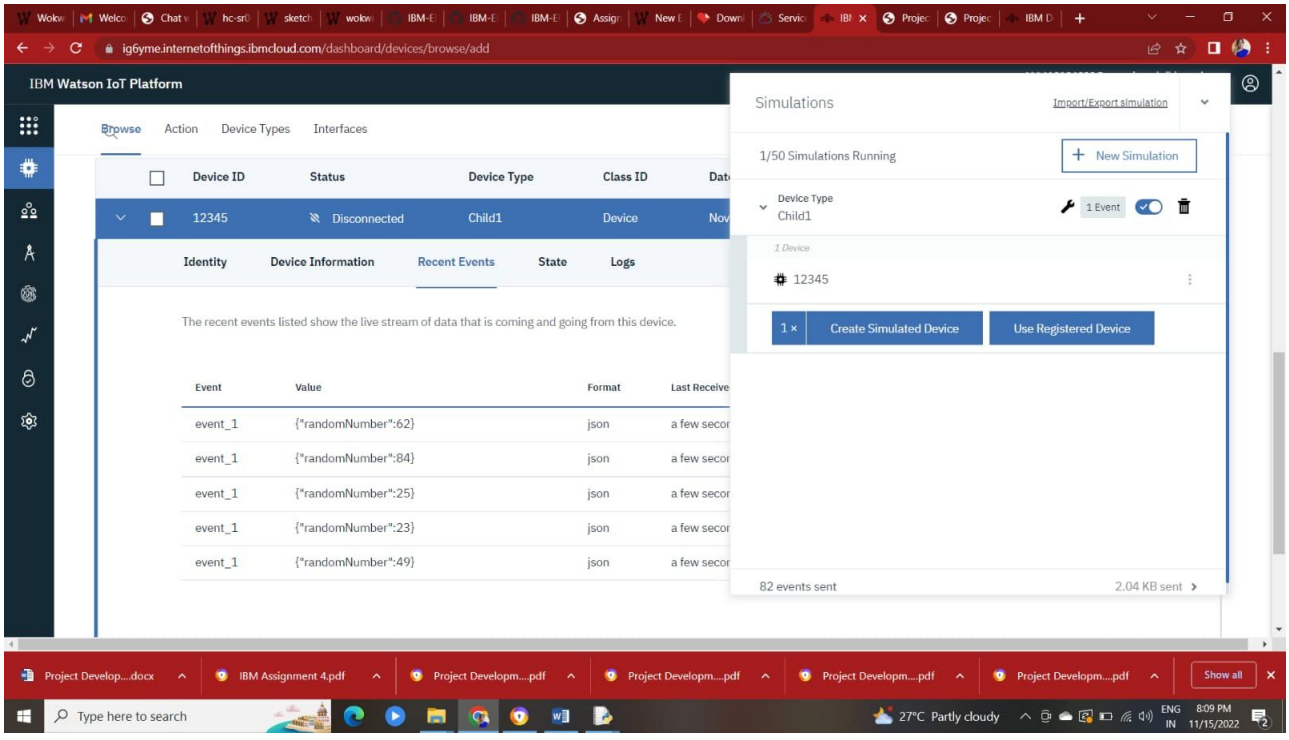
```
print("i can provide your children live location and temperature ")
print()
name=str(input("enter your child name:"))

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:
```

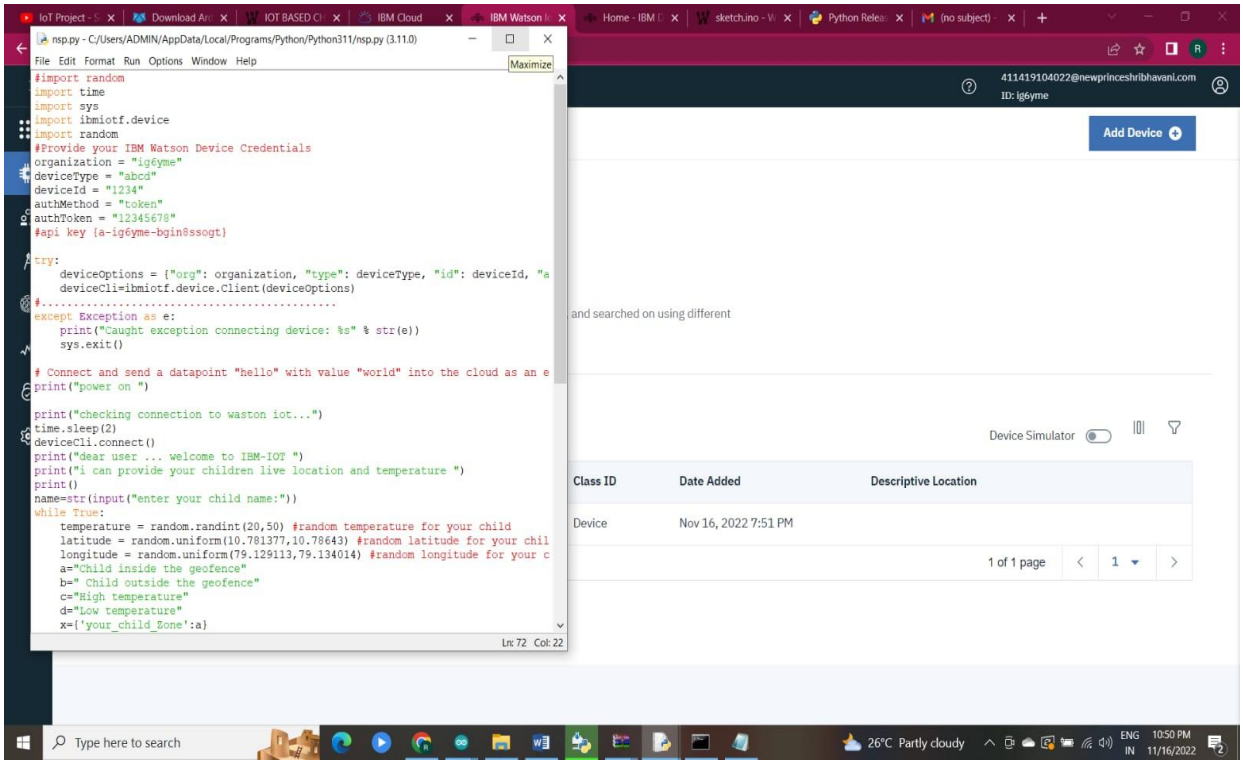
```
deviceCli.publishEvent("IoTSensorgpsdata","json",data=x,qos=0,on_publish
=myOnPublishCallback)
                print(x)
                print("\n")
            else:


deviceCli.publishEvent("IoTSensorgpsdata","json",data=y,qos=0,on_publish
=myOnPublishCallback)
                 print(y)
                 print("\n")

            if (temperature>35):

deviceCli.publishEvent("IoTSensorgpsdata","json",data=z,qos=0,on_publish
=myOnPublishCallback)
                 print(c)
                  print("\n")
            else:

deviceCli.publishEvent("IoTSensorgpsdata","json",data=w,qos=0,on_publish
=myOnPublishCallback)
                print(d)
                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:






nsp.py - C:/Users/ADMIN/AppData/Local/Programs/Python/Python311/nsp.py (3.11.0)
File Edit Format Run Options Window Help
Maximize
#import random
import time
import sys
import ibmiotf.device
import random
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organization = "ig6yme"
deviceType = "abcd"
deviceId = "1234"
authMethod = "token"
authToken = "12345678"
#api key {a-ig6yme-bgin8ssogt}
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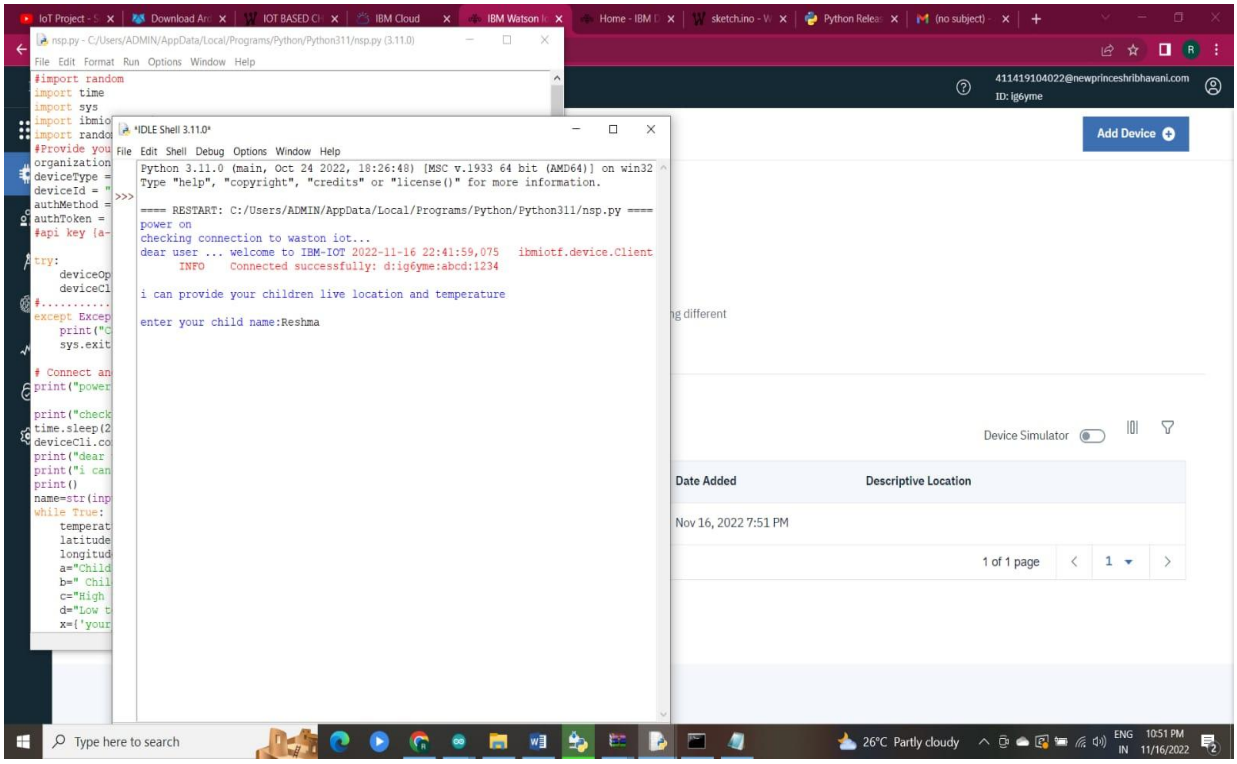
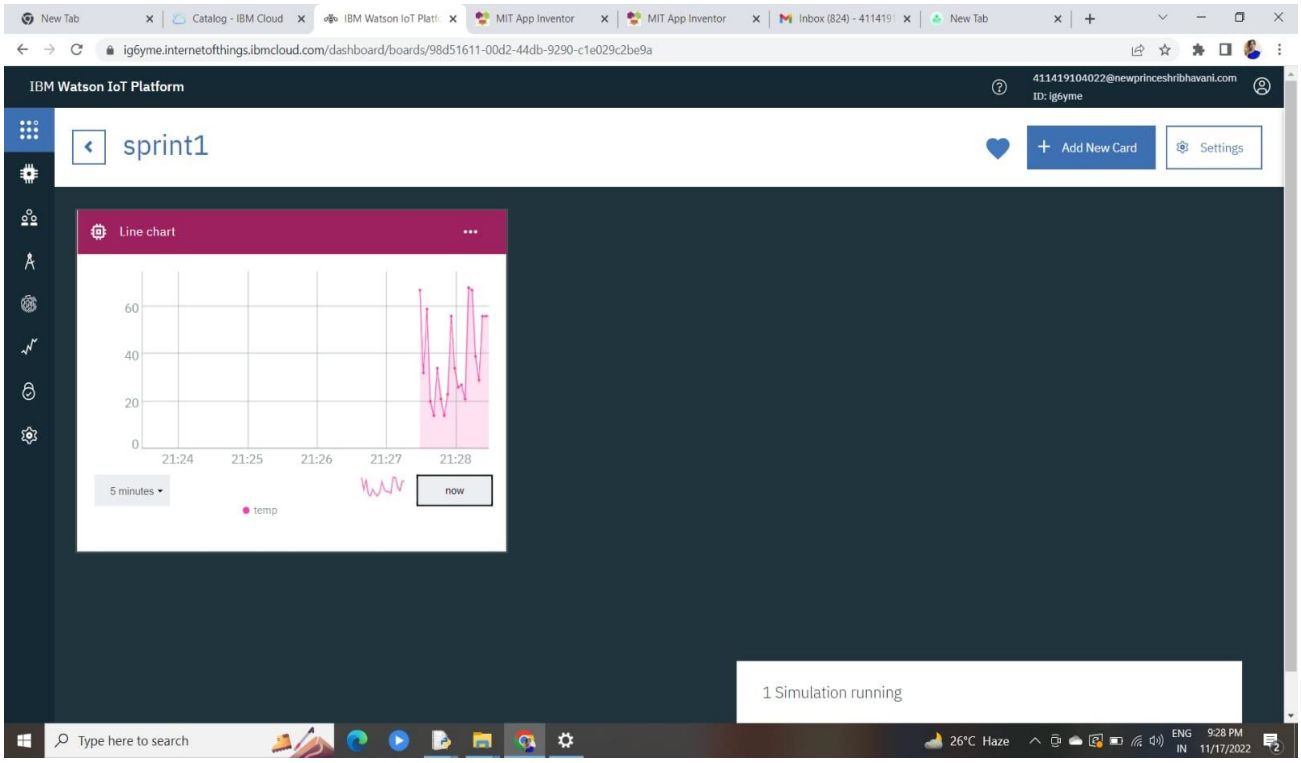
a="Child inside the geofence"
b=" Child outside the geofence"
c="High temperature"
d="Low temperature"
x={'your_child_Zone':a}
Ln: 72 Col: 22
411419104022@newprinceshribhavani.com
ID: ig6yme
Add Device
and searched on using different
Device Simulator
Class ID
Date Added
Descriptive Location
Device
Nov 16, 2022 7:51 PM
1 of 1 page
1
Type here to search
26°C Partly cloudy
ENG
IN
10:50 PM
11/16/2022


nsp.py - C:/Users/ADMIN/AppData/Local/Programs/Python/Python311/nsp.py (3.11.0)
File Edit Format Run Options Window Help
IDLE Shell 3.11.0
File Edit Shell Debug Options Window Help
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/ADMIN/AppData/Local/Programs/Python/Python311/nsp.py ====
power on
checking connection to waston iot...
dear user ... welcome to IBM-IOT 2022-11-16 22:41:59,075 ibmiotf.device.Client
INFO Connected successfully: d:ig6yme:abcd:1234
i can provide your children live location and temperature
enter your child name:Reshma
411419104022@newprinceshribhavani.com
ID: ig6yme
Add Device
Device Simulator
Date Added
Descriptive Location
Nov 16, 2022 7:51 PM
1 of 1 page
1
Type here to search
26°C Partly cloudy
ENG
IN
10:51 PM
11/16/2022


IBM Watson IoT Platform
411419104022@newprinceshribhavani.com
ID: ig6yme
sprint1
Add New Card
Settings
Line chart
60
40
20
0
21:24
21:25
21:26
21:27
21:28
5 minutes
now
temp
1 Simulation running
Type here to search
26°C Haze
ENG
IN
9:28 PM
11/17/2022