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
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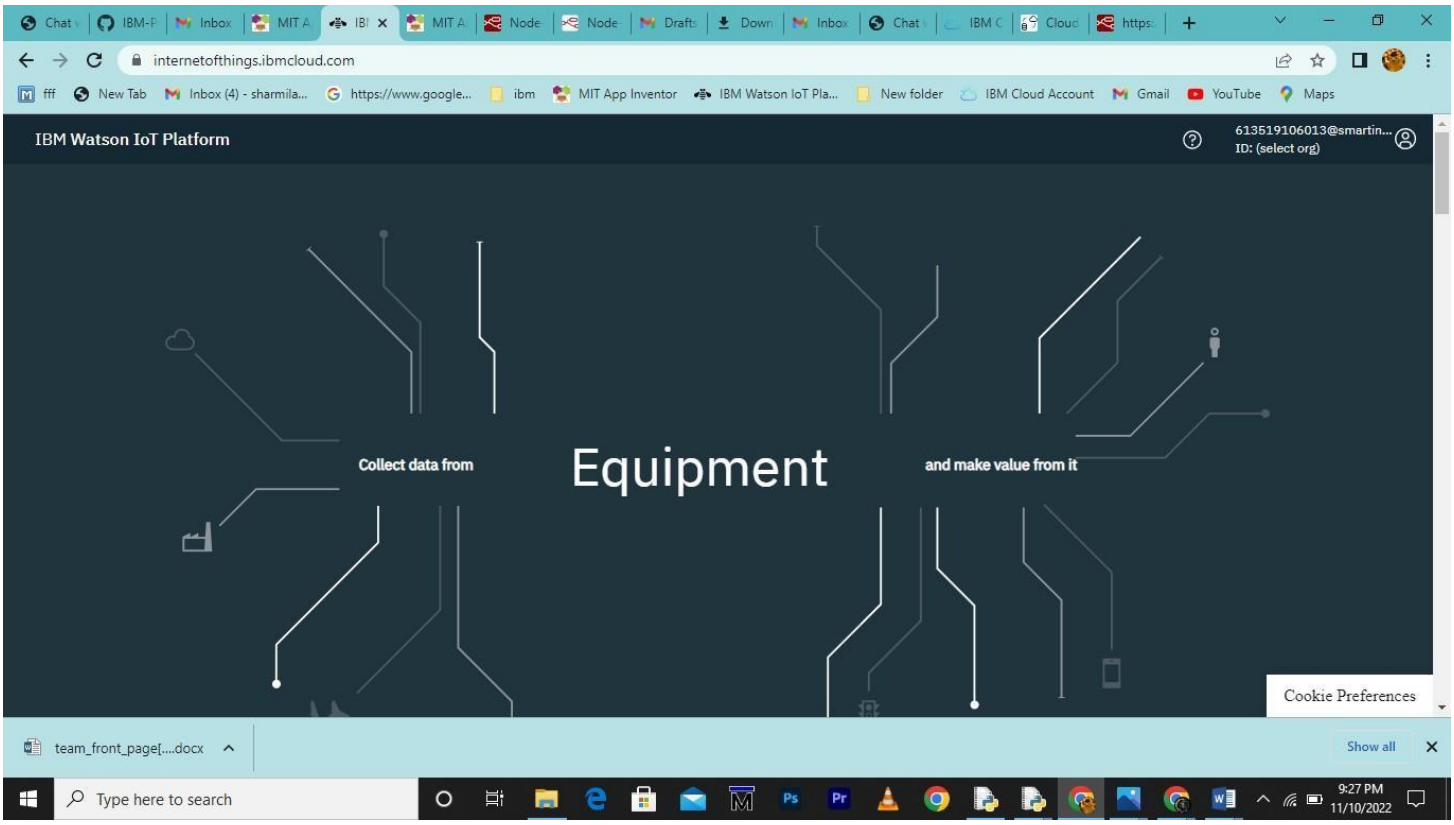
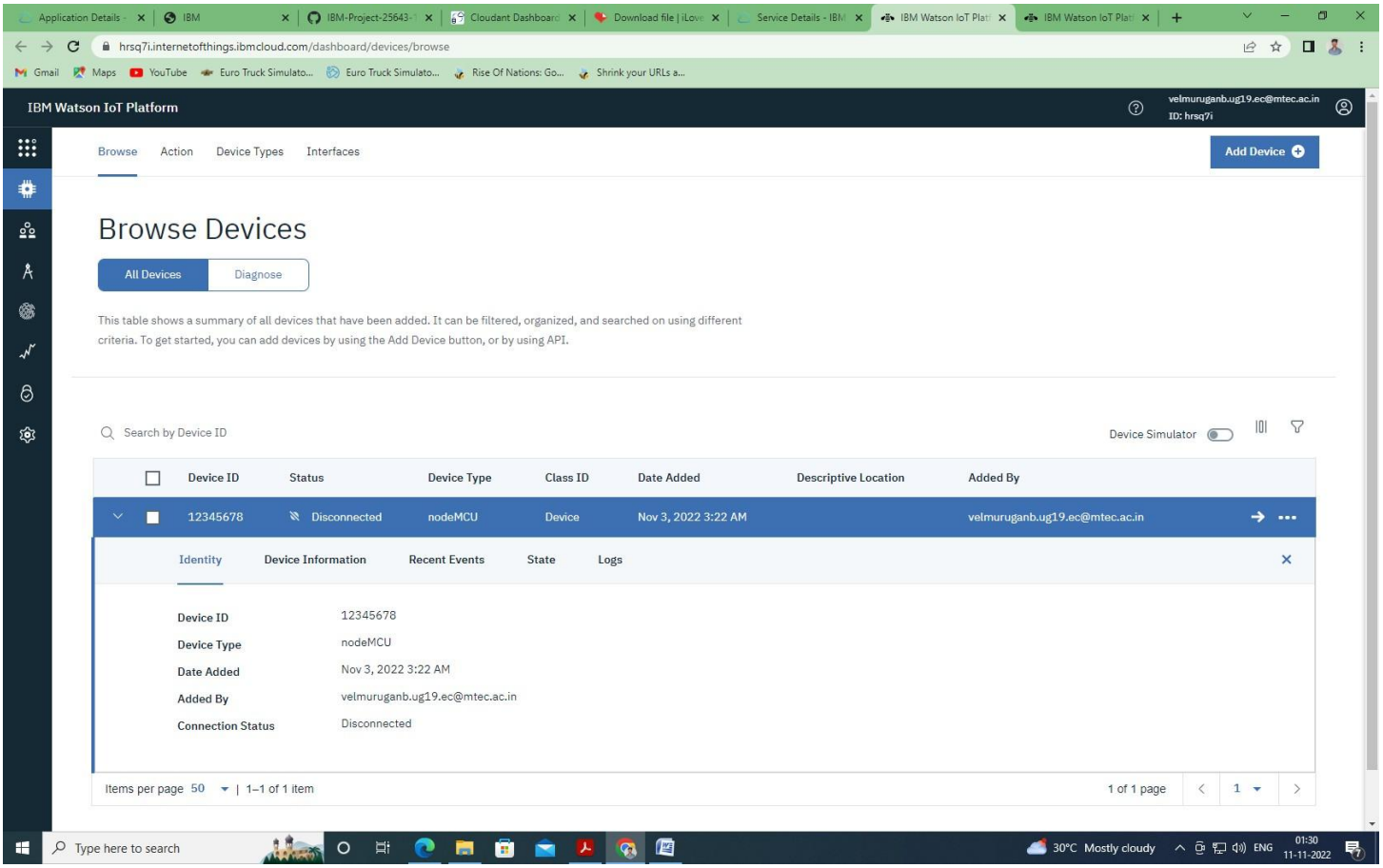
Creating IBM Cloud Service and creating the device:





Creating Python Code:

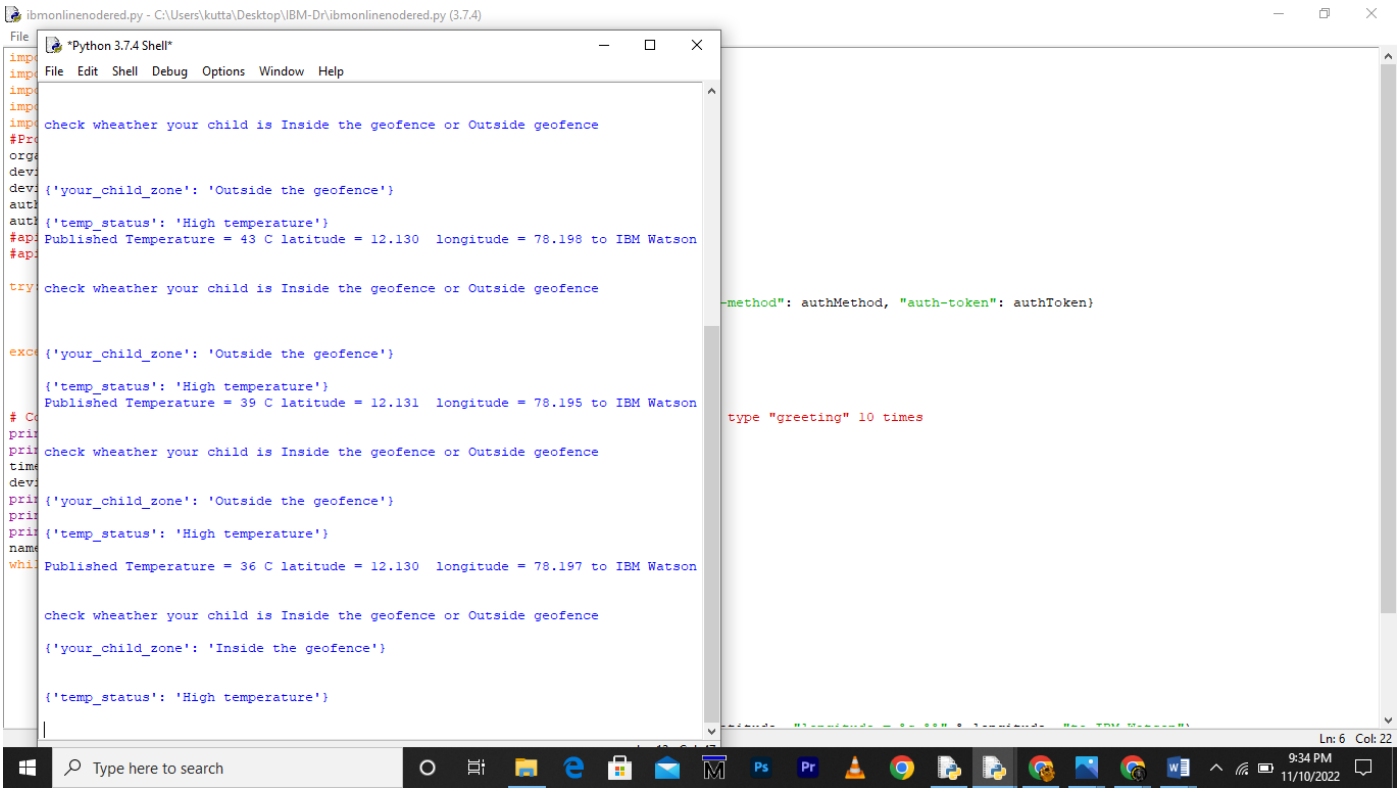
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "zwx6lb"
deviceType="nodeMCU"
 deviceId = "12345678"
authMethod = "token"
authToken = "12345678"
#api key {a-illza1-mbdxqo6z0s}
#api token {zSYzISuAWF&F_x7GkT}


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 "greeting" 10 times
print("power on ")
```

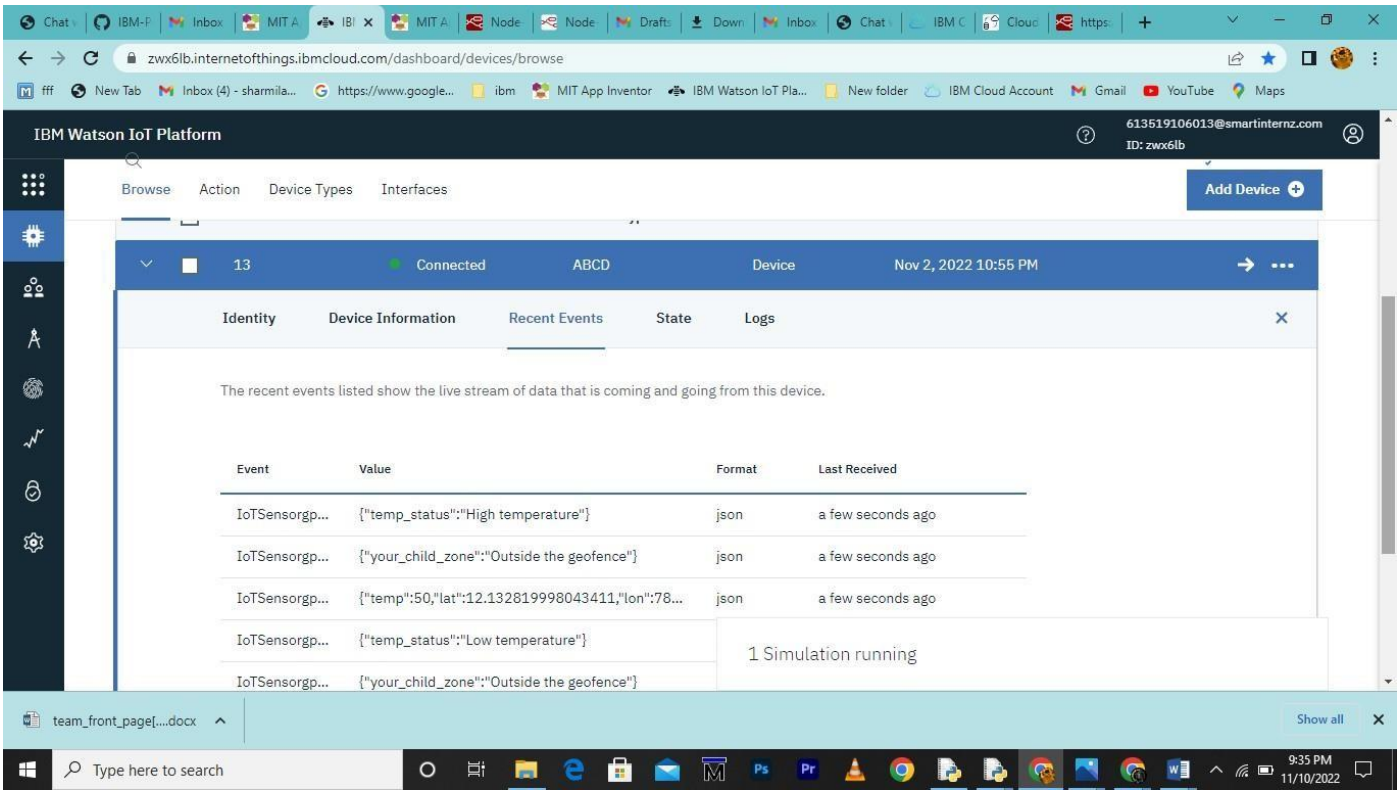
```
print("checking connection to waston iot...")
time.sleep(2)
deviceCli.connect()
print("dear user ... welcome to IBM-IOT ")
print("i can provide your children live location and temperature ")
print()
name=str(input("enter your child name:"))
while True:


    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=myOnPublishCallb
ack)

        print(x)

        print("\n")

    else:

deviceCli.publishEvent("IoTSensorgpsdata","json",data=y,qos=0,on_publish=myOnPublishCallb
ack)

        print(y)

        print("\n")


    if (temperature>35):

deviceCli.publishEvent("IoTSensorgpsdata","json",data=z,qos=0,on_publish=myOnPublishCallb
ack)

            print(c)

            print("\n")

    else:

deviceCli.publishEvent("IoTSensorgpsdata","json",data=w,qos=0,on_publish=myOnPublishCall
back)

            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:




zwx6lb.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
613519106013@smartinternz.com
ID: zwx6lb
Browse
Action
Device Types
Interfaces
Add Device
13
Connected
ABCD
Device
Nov 2, 2022 10:55 PM
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
IoTSensorgp...
{"temp_status":"High temperature"}
json
a few seconds ago
IoTSensorgp...
{"your_child_zone":"Outside the geofence"}
json
a few seconds ago
IoTSensorgp...
{"temp":50,"lat":12.132819998043411,"lon":78...
json
a few seconds ago
IoTSensorgp...
{"temp_status":"Low temperature"}
IoTSensorgp...
{"your_child_zone":"Outside the geofence"}
1 Simulation running
team_front_page[....docx
Show all
Type here to search
9:35 PM
11/10/2022