

# Safety Gadget for Child Safety Monitoring and Notification

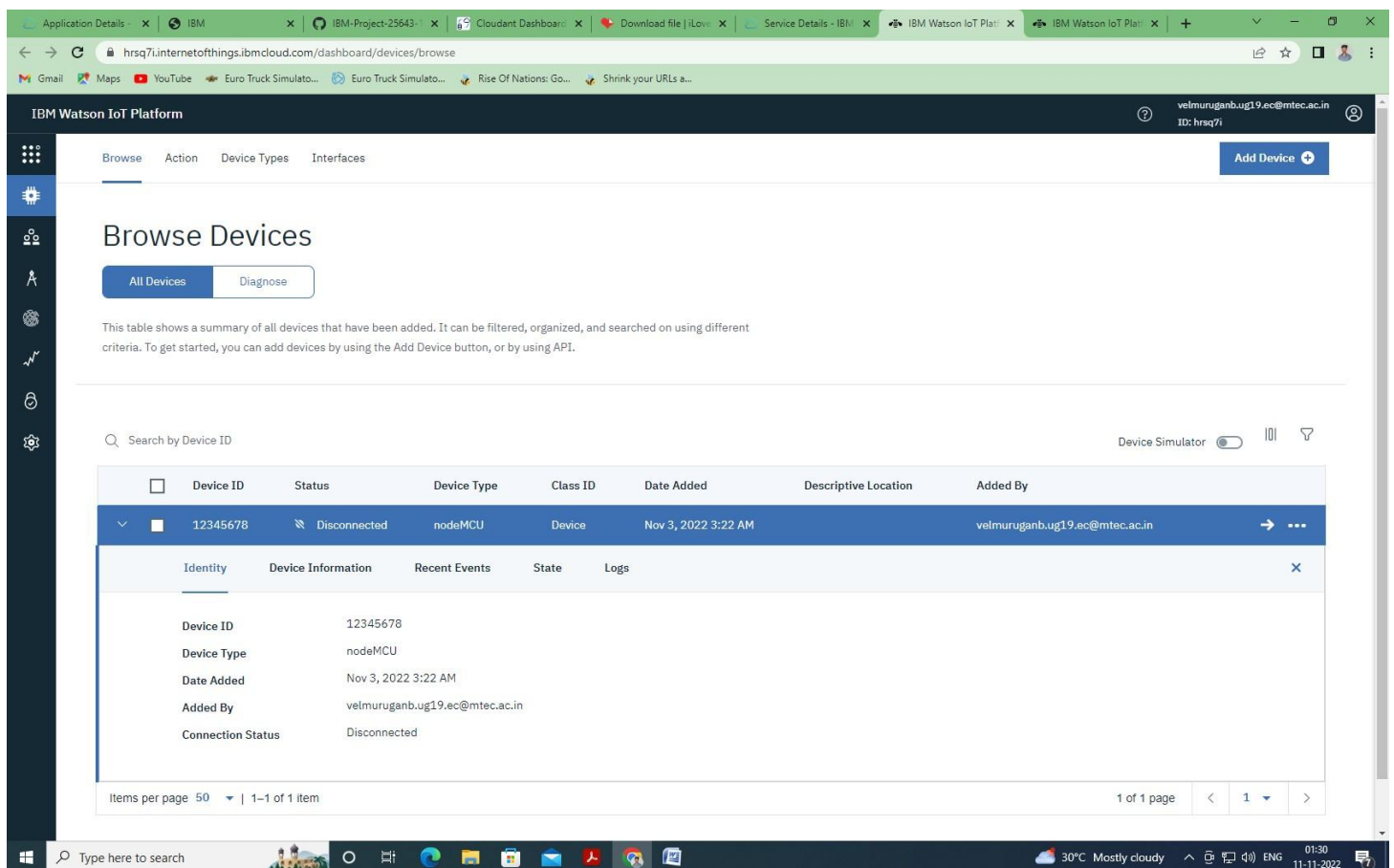
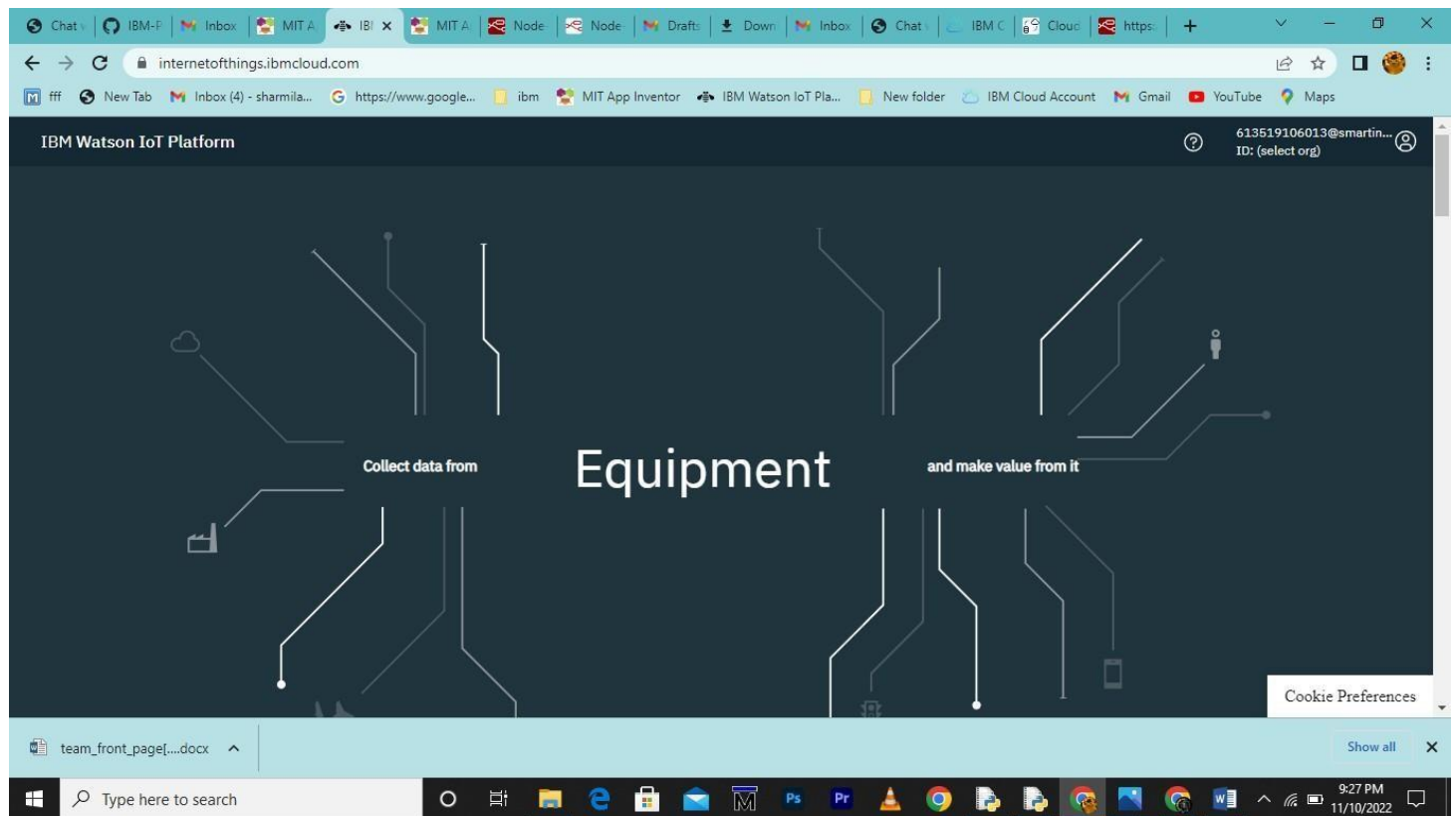
IBM NALAIYATHIRAN

## Project Development –Delivery of Sprint 1

Creating and Connecting IBM cloud for Project and Python Code

<b>TITLE</b>	IOT based child safety gadget for child safety monitoring and notification
<b>DOMAIN NAME</b>	INTERNET OF THINGS
<b>TEAM ID</b>	PNT2022TMID37747
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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 IoT")
```

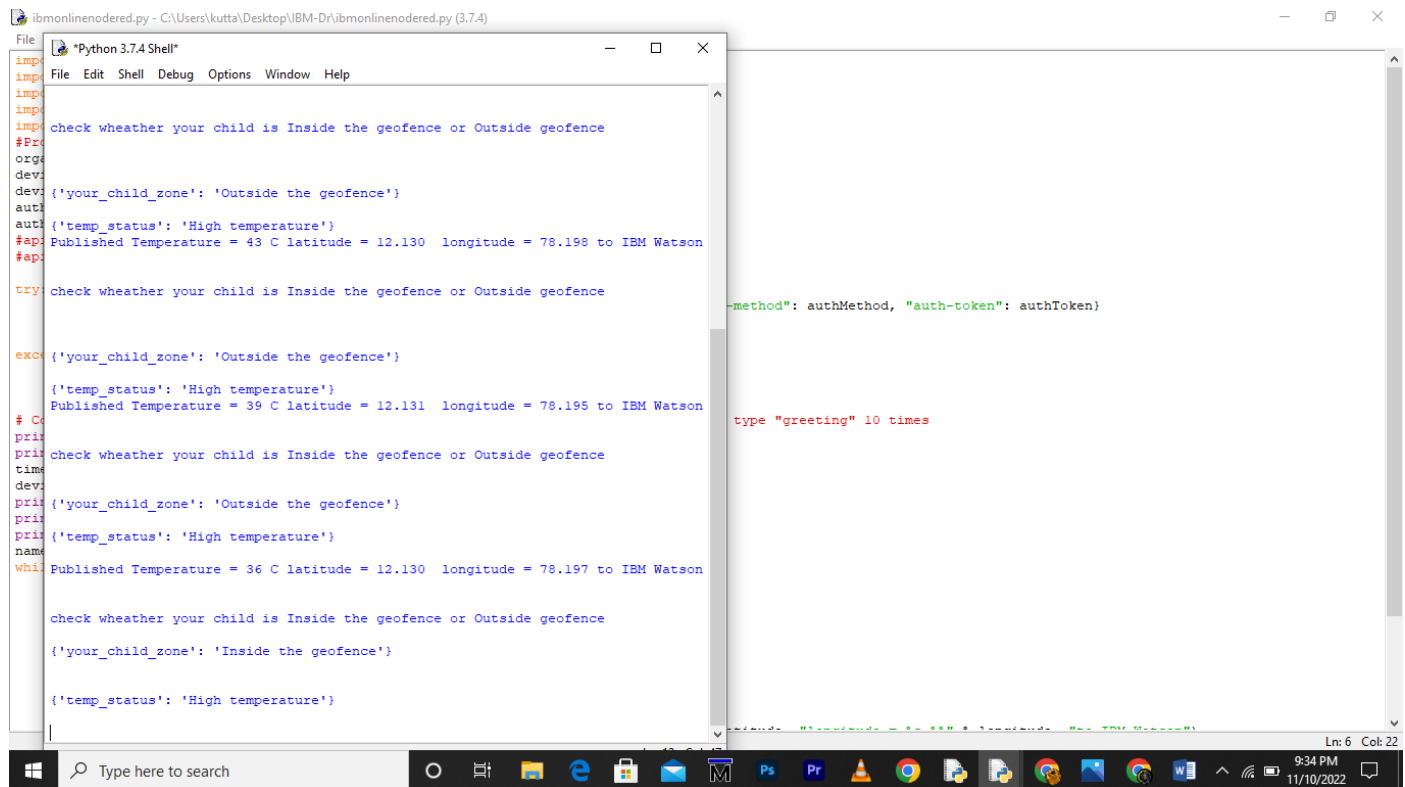
```
print("\n")
```

```
time.sleep(3)
```

# Disconnect the device and application from the cloud

```
deviceCli.disconnect()
```

## Connecting IBM Watson and python Code:



The screenshot shows a Windows desktop environment. In the foreground, a "Python 3.7.4 Shell" window is open, displaying a script. The script includes comments and code for checking geofence status and temperature. The background shows a code editor window with a snippet of code for authentication and a loop for printing a greeting.

```
File Edit Shell Debug Options Window Help
import
import
import
import
import
check wheather your child is Inside the geofence or Outside geofence
#Pr
org
dev:
dev:
dev: {'your_child_zone': 'Outside the geofence'}
auti
auti {'temp_status': 'High temperature'}
#ap Published Temperature = 43 C latitude = 12.130 longitude = 78.198 to IBM Watson
#ap
try check wheather your child is Inside the geofence or Outside geofence

exc ('your_child_zone': 'Outside the geofence')

('temp_status': 'High temperature')
Published Temperature = 39 C latitude = 12.131 longitude = 78.195 to IBM Watson
# C
pri
pri
tim
dev:
pri ('your_child_zone': 'Outside the geofence')
pri ('temp_status': 'High temperature')
nam
whil Published Temperature = 36 C latitude = 12.130 longitude = 78.197 to IBM Watson

check wheather your child is Inside the geofence or Outside geofence
('your_child_zone': 'Inside the geofence')

('temp_status': 'High temperature')
```

```
-method": authMethod, "auth-token": authToken)

type "greeting" 10 times

Ln: 6 Col: 22
```

Chat v IBM-P Inbox MIT A IBI x MIT A Node Node Drafts Down Inbox Chat IBM C Cloud https +

zwx6lb.internetofthings.ibmcloud.com/dashboard/devices/browse

fff New Tab Inbox (4) - sharmila... https://www.google... ibm MIT App Inventor IBM Watson IoT Pla... New folder IBM Cloud Account Gmail YouTube Maps

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 X

Type here to search 9:35 PM 11/10/2022