TEAM ID: PNT2022TMID29745

PROJECT: IoT Based safety gadgetfor child safety monitoring and notification.

Develop a web application using node red service

Python script

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "1dsau7"
deviceType = "child"
deviceId = "2502"
authMethod = "token"
authToken = "234567890"
#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 ")
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_publi
sh=myOnPublishCallback)
                print(x)
                print("\n")
        else:

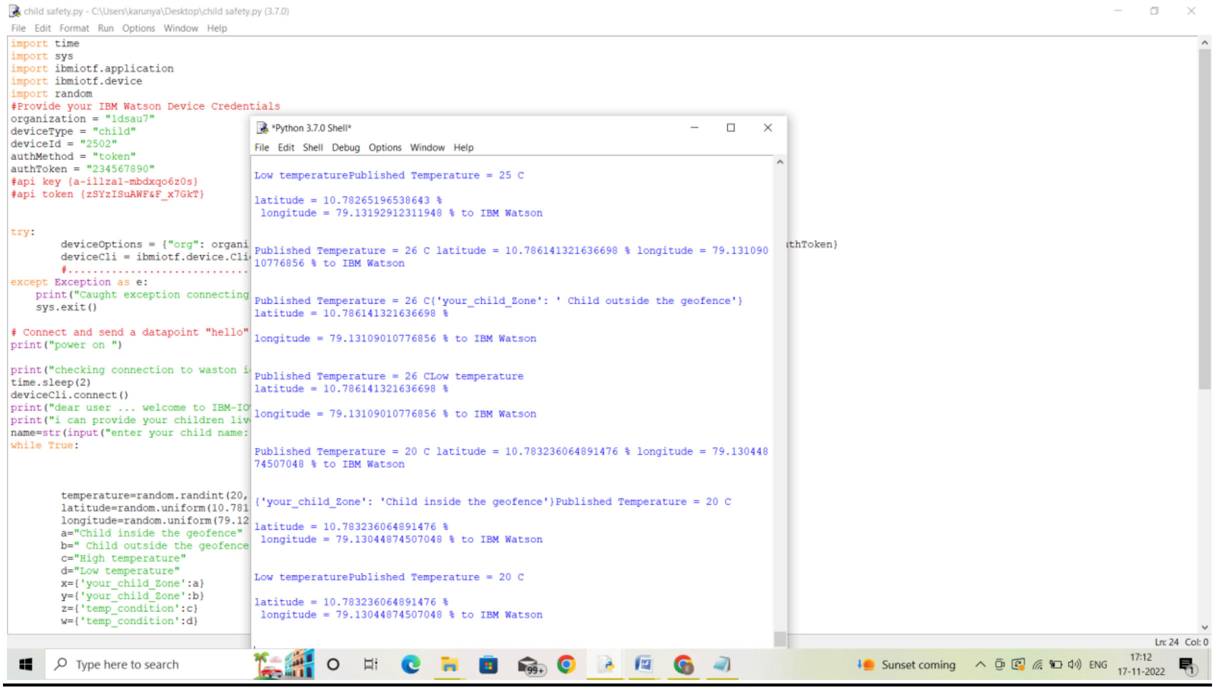
deviceCli.publishEvent("IoTSensorgpsdata","json",data=y,qos=0,on_publi
sh=myOnPublishCallback)
```

```
        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()
```



child safety.py - C:\Users\karunya\Desktop\child safety.py (3.7.0)

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#api key {a-illza1-mbdxqo6z0s}
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try:
        deviceOptions = {"org": organi
        deviceCli = ibmiotf.device.Cli
        #.............................
except Exception as e:
    print("Caught exception connecting
    sys.exit()

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        temperature=random.randint(20,
        latitude=random.uniform(10.781
        longitude=random.uniform(79.12
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        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}
```

Python 3.7.0 Shell

```
Low temperaturePublished Temperature = 25 C

latitude = 10.78265196538643 %
 longitude = 79.13192912311948 % to IBM Watson


Published Temperature = 26 C latitude = 10.786141321636698 % longitude = 79.131090
10776856 % to IBM Watson


Published Temperature = 26 C{'your_child_Zone': ' Child outside the geofence'}
latitude = 10.786141321636698 %

longitude = 79.13109010776856 % to IBM Watson


Published Temperature = 26 CLow temperature
latitude = 10.786141321636698 %

longitude = 79.13109010776856 % to IBM Watson


Published Temperature = 20 C latitude = 10.783236064891476 % longitude = 79.130448
74507048 % to IBM Watson

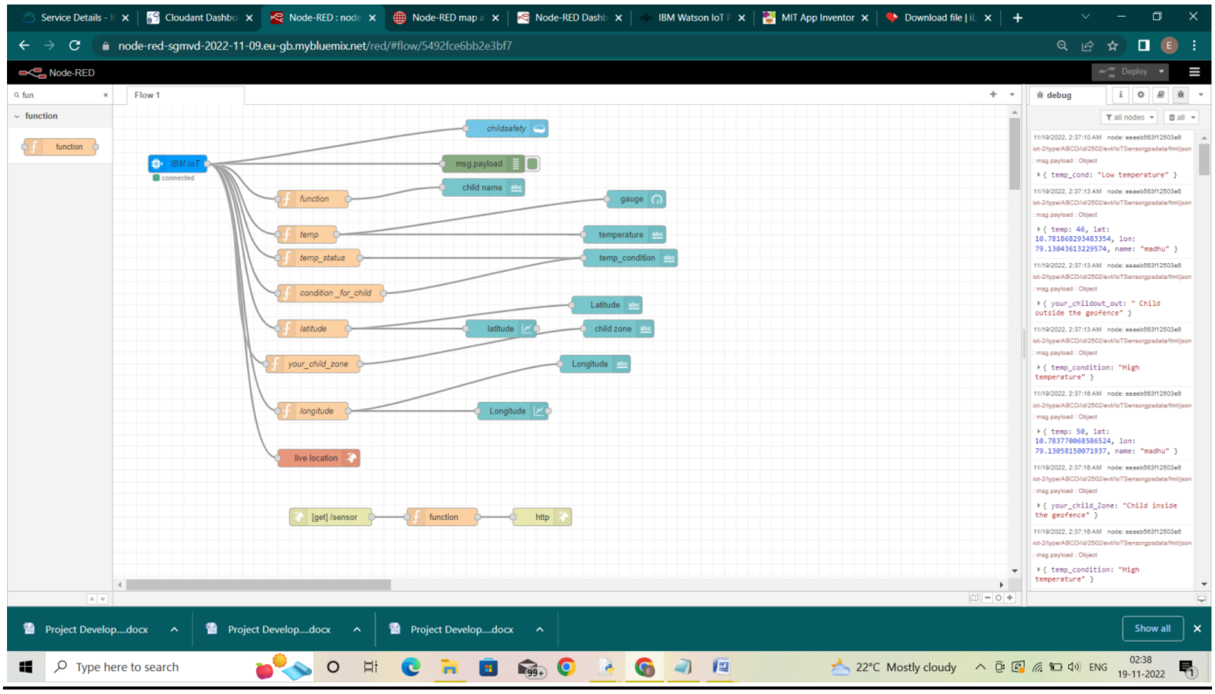

{'your_child_Zone': 'Child inside the geofence'}Published Temperature = 20 C

latitude = 10.783236064891476 %
 longitude = 79.13044874507048 % to IBM Watson


Low temperaturePublished Temperature = 20 C

latitude = 10.783236064891476 %
 longitude = 79.13044874507048 % to IBM Watson
```

File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
Ln: 24 Col: 0
Type here to search
Sunset coming
ENG
17:12
17-11-2022



node-red-sgmvd-2022-11-09.eu-gb.mybluemix.net/red/#flow/5492fce6bb2e3bf7

```
11/19/2022, 2:37:10 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ temp_cond: "Low temperature" }
11/19/2022, 2:37:13 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ temp: 46, lat:
10.781868293483354, lon:
79.13043613229574, name: "madhu" }
11/19/2022, 2:37:13 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ your_childout_out: " Child
outside the geofence" }
11/19/2022, 2:37:13 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ temp_condition: "High
temperature" }
11/19/2022, 2:37:16 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ temp: 50, lat:
10.783770068586524, lon:
79.13058150071937, name: "madhu" }
11/19/2022, 2:37:16 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
: msg.payload : Object
▸{ your_child_Zone: "Child inside
the geofence" }
11/19/2022, 2:37:16 AM  node: eeaeb583f12503e8
iot-2/type/ABCD/id/2502/evt/IoTSensorgpsdata/fmt/json
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temperature" }
```