

# SPRINT – 1

Team ID	PNT2022TMID34921
Project Name	IOT Based Safety Gadget for Child Safety Monitoring and Notification

```
Child Safety.py - C:/Python/Python37/IBM_program/Child Safety.py (3.7.4)
File Edit Format Run Options Window Help

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

organization="nimvfj"
deviceType="RSVKAioTdevice"
deviceId="RSVKA"
authMethod="token"
authToken="R23S20V04KA26"

def myCommandCallback(cmd):
    print("Command received: %s"%cmd.data['command'])
    status=cmd.data['command']
    if status=="alert message":
        print("panic button is on")
    else:
        print("panic button is off")

try:
    deviceOptions={"org":organization,"type":deviceType,"id":deviceId,"auth-method":authMethod,"auth-token":authToken}
    deviceCli=ibmiotf.device.Client(deviceOptions)

except Exception as e:
    print("Caughtt exception connecting device:%s"%str(e))
    sys.exit()
deviceCli.connect()

while True:
    lat=random.randint(-90,90)
    lon=random.randint(-90,90)
```

Ln: 44 Col: 0

```
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status=cmd.data['command']
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try:
    deviceOptions={"org":organization,"type":deviceType,"id":deviceId,"auth-method":authMethod,"auth-token":authToken}
    deviceCli=ibmiotf.device.Client(deviceOptions)

except Exception as e:
    print("Caughtt exception connecting device:%s"%str(e))
    sys.exit()
deviceCli.connect()

while True:
    lat=random.randint(-90,90)
    lon=random.randint(-90,90)

    data={'Latitude': lat, 'Longitude':lon}

    def myOnPublishCallback():
        print("Published Latitude=%s"%lat,"% Longitude=%s"%lon,"to IBM Watson")
        success=deviceCli.publishEvent("Location","json",data,qos=0,on_publish=myOnPublishCallback)
        if not success:
            print("Out of geofence")
            time.sleep(10)

    deviceCli.commandCallback=myCommandCallback

deviceCli.disconnect()
```

Ln: 1 Col: 0

```
Python 3.7.4 Shell
File Edit Shell Debug Options Window Help

Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python/Python37/IBM program/Child Safety.py =====
2022-11-18 04:59:08,007 ibmiotf.device.Client INFO Connected successfully: d:nimvfj:RSVKAtoDevice:RSVKA
Published Latitude=-1 & Longitude=-41 to IBM Watson
Published Latitude=50 & Longitude=21 to IBM Watson
Published Latitude=-79 & Longitude=-79 to IBM Watson
Published Latitude=68 & Longitude=-90 to IBM Watson
Published Latitude=-24 & Longitude=-8 to IBM Watson
Published Latitude=6 & Longitude=-39 to IBM Watson
Published Latitude=42 & Longitude=-19 to IBM Watson
Published Latitude=53 & Longitude=-70 to IBM Watson
Published Latitude=-84 & Longitude=-24 to IBM Watson
Published Latitude=-9 & Longitude=-57 to IBM Watson
Published Latitude=-21 & Longitude=-29 to IBM Watson
Published Latitude=54 & Longitude=75 to IBM Watson
Published Latitude=90 & Longitude=66 to IBM Watson
Published Latitude=71 & Longitude=79 to IBM Watson
Published Latitude=-52 & Longitude=-3 to IBM Watson
Published Latitude=-66 & Longitude=-36 to IBM Watson
Published Latitude=18 & Longitude=33 to IBM Watson
Published Latitude=-19 & Longitude=89 to IBM Watson
Published Latitude=-1 & Longitude=-59 to IBM Watson
Published Latitude=-64 & Longitude=-63 to IBM Watson
Published Latitude=6 & Longitude=83 to IBM Watson
Published Latitude=-83 & Longitude=-13 to IBM Watson
Published Latitude=-17 & Longitude=24 to IBM Watson
Published Latitude=-78 & Longitude=48 to IBM Watson
Published Latitude=-64 & Longitude=31 to IBM Watson
Published Latitude=-22 & Longitude=40 to IBM Watson
Published Latitude=-62 & Longitude=17 to IBM Watson
Ln: 36 Col: 51
```

IBM Watson IoT Platform 962819106032@smartinternz.com ID: nimvfj

Browse Action Device Types Interfaces Add Device

Device ID	Status	Device Type	Class ID	Date Added	
RSVKA	Disconnected	RSVKAtoDevice	Device	Oct 23, 2022 11:41 AM	→ ...

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
Location	{"Latitude":46,"Longitude":-23}	json	a few seconds ago
Location	{"Latitude":-62,"Longitude":17}	json	a few seconds ago
Location	{"Latitude":-22,"Longitude":40}	json	a few seconds ago
Location	{"Latitude":-64,"Longitude":31}	json	a minute ago
Location	{"Latitude":-78,"Longitude":48}	json	a minute ago

Node-RED interface showing a flow named "Flow 1". The flow consists of two nodes: "IBM IoT" (connected) and "msg payload". The "debug" console on the right displays the following log entries:

```
2/type/RSVKAIoTDevice/id/RSVKA/evt/Location/fmt/json
: msg.payload : Object
  { Latitude: -17, Longitude: 24 }

11/18/2022, 5:06:48 AM node: msg.payload
iot-
2/type/RSVKAIoTDevice/id/RSVKA/evt/Location/fmt/json
: msg.payload : Object
  { Latitude: -78, Longitude: 48 }

11/18/2022, 5:07:08 AM node: msg.payload
iot-
2/type/RSVKAIoTDevice/id/RSVKA/evt/Location/fmt/json
: msg.payload : Object
  { Latitude: -64, Longitude: 31 }

11/18/2022, 5:07:28 AM node: msg.payload
iot-
2/type/RSVKAIoTDevice/id/RSVKA/evt/Location/fmt/json
: msg.payload : Object
  { Latitude: -22, Longitude: 40 }

11/18/2022, 5:07:48 AM node: msg.payload
iot-
2/type/RSVKAIoTDevice/id/RSVKA/evt/Location/fmt/json
: msg.payload : Object
  { Latitude: -62, Longitude: 17 }
```

IBM Watson IoT Platform interface showing the "Device Type: RSVKAIoTdevice" configuration. The "Events" tab is active, displaying a table of recent events:

Event	Value
event_1	{"Latitude":41,"Longitude":-88}
event_1	{"Latitude":-28,"Longitude":-83}
event_1	{"Latitude":-60,"Longitude":-41}
event_1	{"Latitude":30,"Longitude":-16}
event_1	{"Latitude":73,"Longitude":12}

The "Payload" section shows the event type name "event\_1" and the schedule "Every Minute". The payload is defined as:

```
{
  "Latitude": random(-90, 90),
  "Longitude": random(-90, 90)
}
```

The "Send" button is visible, and the "Upload a CSV file" button is also present.

Node-RED interface showing a flow named "Flow 1". The flow consists of two nodes: "IBM IoT" (connected) and "msg payload". The "debug" console on the right displays the following log entries:

```
2/type/RSVKAIoTDeviceId/RSVKA/evt/event_1/fmt/json
: msg.payload : Object
  > { Latitude: 73, Longitude: 12 }

11/18/2022, 5:15:38 AM node: msg.payload
iot-
2/type/RSVKAIoTDeviceId/RSVKA/evt/event_1/fmt/json
: msg.payload : Object
  > { Latitude: 30, Longitude: -16 }

11/18/2022, 5:15:41 AM node: msg.payload
iot-
2/type/RSVKAIoTDeviceId/RSVKA/evt/event_1/fmt/json
: msg.payload : Object
  > { Latitude: -60, Longitude: -41 }

11/18/2022, 5:15:44 AM node: msg.payload
iot-
2/type/RSVKAIoTDeviceId/RSVKA/evt/event_1/fmt/json
: msg.payload : Object
  > { Latitude: -28, Longitude: -83 }

11/18/2022, 5:15:47 AM node: msg.payload
iot-
2/type/RSVKAIoTDeviceId/RSVKA/evt/event_1/fmt/json
: msg.payload : Object
  > { Latitude: 41, Longitude: -88 }
```

IBM Watson IoT Platform interface showing the "Recent Events" tab for a device named "RSVKA". The device is disconnected. The table below shows the recent events:

Event	Value	Format	Last Received
event_1	{"Latitude":41,"Longitude":-88}	json	a few seconds ago
event_1	{"Latitude":-28,"Longitude":-83}	json	a few seconds ago
event_1	{"Latitude":-60,"Longitude":-41}	json	a few seconds ago
event_1	{"Latitude":30,"Longitude":-16}	json	a few seconds ago
event_1	{"Latitude":73,"Longitude":12}	json	a few seconds ago

1 Simulation running