

## CODE LAYOUT, READABILITY, REUSABILTY

Date	19 November 2022
Team ID	PNT2022TMID21355
Project Name	Project - Personal Assistance for Seniors Who Are Self-Reliant

The code is readable and it is separated into functions so that can be reused.

### **CODE:**

```
import time import sys
```

```
import ibmiotf.application
```

```
import ibmiotf.device
```

```
import random
```

```
#Provide your IBM Watson Device Credentials
```

```
organization = "dan4dl" deviceType =
```

```
"raspberrypi" deviceId = "23456"
```

```
authMethod = "token" authToken =
```

```
"8989898989"
```

```
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 deviceCli.connect()
```

```
while True:
```

```
    for i in range(0,20):
```

```
        tablet=["Paracetamol","Aspirine","Azithral","Asthalin","Sinarest"]
```

```
medicinetime=[12.00,1.00,2.00,3.00,5.00,18.00,20.00,7.00]
```

```
medicine=random.choice(tablet)          medicinetime=random.choice(medicinetime)
```

```
    name="rekha"
```

```
    mydata = {'Patient Name': name, 'Medicine Name': medicine, 'Time': medicinetime}
```

```
    #print data
```

```
    def myOnPublishCallback():
```

```
        print ("Published name = %s " % name, "Medicine name = %s" % medicine,"Medicine  
time = %s" % medicinetime, "to IBM Watson")
```

```
        success = deviceCli.publishEvent("IoTSensor", "json", mydata, qos=0,  
on_publish=myOnPublishCallback)
```

```
        if not success:
```

```
            print("Not connected to IoT")
```

```
time.sleep(1)
```

```
time.sleep(5)
```

```
# Disconnect the device and application from the cloud deviceCli.disconnect()
```

## CODE SNAPSHOT:

```
py.code.py - C:\Users\Devi\Desktop\py.code.py (3.7.0)
File Edit Format Run Options Window Help

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

#Provide your IBM Watson Device Credentials
organization = "dand4d1"
deviceType = "raspberrypi"
deviceId = "23456"
authMethod = "token"
authToken = "898989898989"

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
deviceCli.connect()

while True:
    for i in range(0,20):
        tablet=["Paracetamol","Aspirine","Azithral","Asthalin","Sinarest"]
        medicinetime=[12.00,1.00,2.00,3.00,5.00,18.00,20.00,7.00]
        medicine=random.choice(tablet)
        medicinetime=random.choice(medicinetime)
        name="rekha"
        mydata = {'Patient Name': name, 'Medicine Name': medicine, 'Time': medicinetime}
        #print data
        def myOnPublishCallback():
            print ("Published name = %s " % name, "Medicine name = %s" % medicine, "Medicine time = %s" % medicinetime, "to IBM Watson")

        success = deviceCli.publishEvent("IoTSensor", "json", mydata, qos=0, on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoT")
        time.sleep(1)
    time.sleep(5)

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

## OUTPUT:

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

Published name = rekha Medicine name = Asthalin Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 2.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 5.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 18.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 18.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 2.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 7.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 1.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 18.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 1.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 5.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 18.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 5.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 1.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 5.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 18.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 2.0 to IBM Watson
Published name = rekha Medicine name = Paracetamol Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 12.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 7.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 2.0 to IBM Watson
Published name = rekha Medicine name = Sinarest Medicine time = 3.0 to IBM Watson
Published name = rekha Medicine name = Aspirine Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Azithral Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 20.0 to IBM Watson
Published name = rekha Medicine name = Asthalin Medicine time = 20.0 to IBM Watson
```

## IOT PLATFORM OUTPUT:

The screenshot displays the IBM Watson IoT Platform interface. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A user profile is visible in the top right corner with the email 'divyameena@student.tce.edu' and ID 'david'. A sidebar on the left contains various icons for navigation. The main content area shows a table of recent events for a device. The table has columns for 'Event', 'Value', 'Format', and 'Last Received'. Below the table, there is a summary bar for the device '552001', which is 'Disconnected' and a 'raspberrypi' device, with a last update time of 'Nov 17, 2022 12:25 PM'. The bottom of the interface shows a search bar and a Windows taskbar with various application icons and system status information.

IBM Watson IoT Platform

divyameena@student.tce.edu  
ID: david

Browse Action Device Types Interfaces

Add Device

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
IoT Sensor	{"Patient Name": "rekha", "Medicine Name": "Asth..."}	json	a few seconds ago
IoT Sensor	{"Patient Name": "rekha", "Medicine Name": "Azith..."}	json	a few seconds ago
IoT Sensor	{"Patient Name": "rekha", "Medicine Name": "Sinar..."}	json	a few seconds ago
IoT Sensor	{"Patient Name": "rekha", "Medicine Name": "Asth..."}	json	a few seconds ago
IoT Sensor	{"Patient Name": "rekha", "Medicine Name": "Aspir..."}	json	a few seconds ago

> 552001 Disconnected raspberrypi Device Nov 17, 2022 12:25 PM

Items per page 50 | 1-2 of 2 items

1 of 1 page

0 Simulations running

Type here to search

28°C Haze 13:26 18-11-2022