

### Develop a python script

Team ID	PNT2022TMID52815
Project Name	Smart waste management system for metropolitan cities

Step 1: Open python idle

Step2: Type the program

Step 3: Then click on file and save the document

Step 4: Then click on Run then Run Module

Step 5: output will be appeared in the idle window

## Python script

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

```
#Provide your IBM Watson Device Credentials
organization="gw0bk3"
deviceType="NodeMCU"
deviceId="Anu"
authMethod="token"
authToken="123456789"
```

```
# Initialize GPIO
```

```
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
```

```

status=cmd.data['command']
if status=="lighton":
    print ("led is on")
else :
    print ("led is off")

#print(cmd)

```

```

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:
    #Get Sensor Data from DHT11

    weight=random.randint(0,100)
    level=random.randint(0,100)

    data = { 'weight' : weight, 'level':level  }
    #print data
    def myOnPublishCallback():
        print ("Published Weight = %s Kg" % weight, "level = %s %" % level, "to IBM Watson")

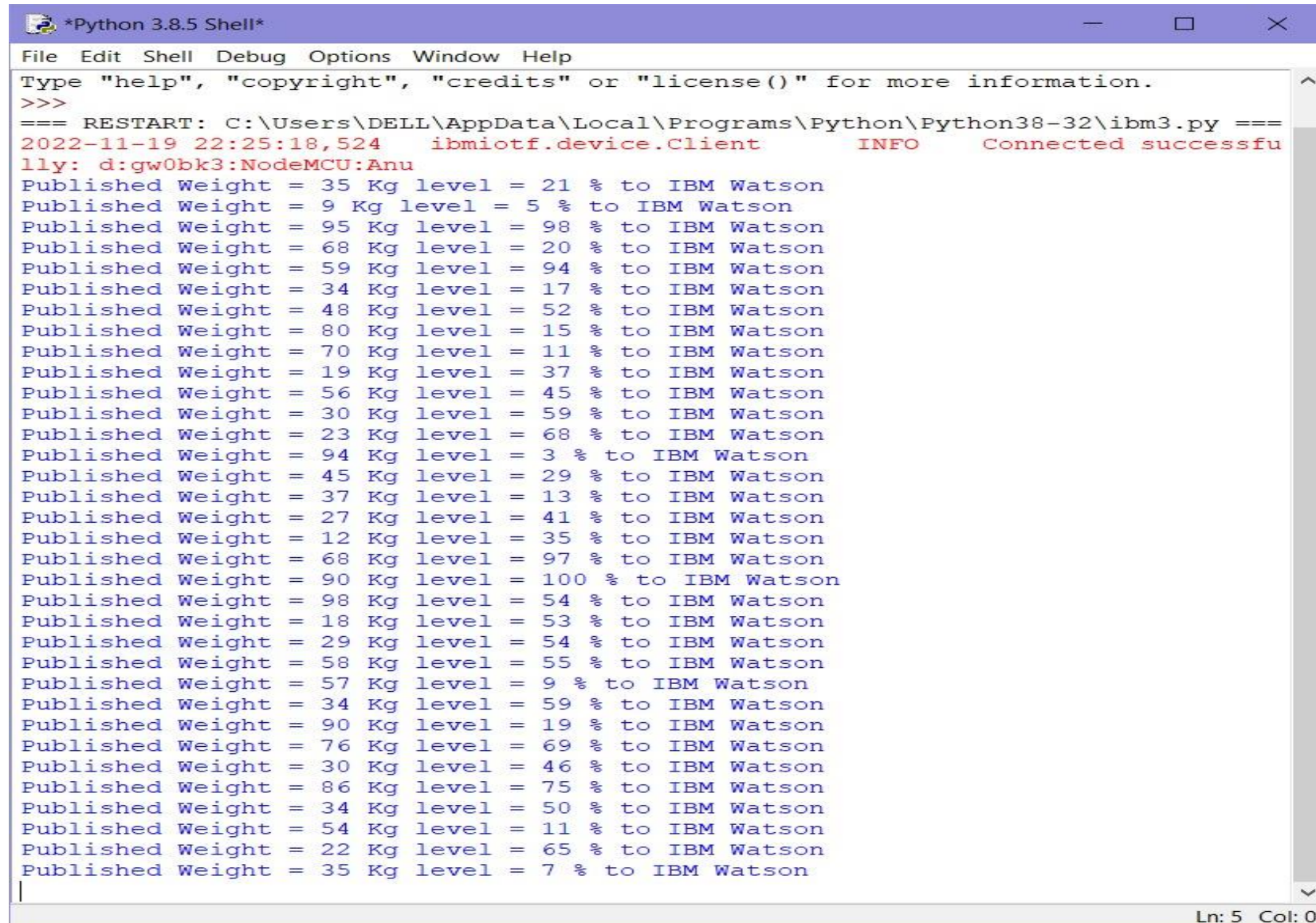
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
    if not success:
        print("Not connected to IoT")
    time.sleep(1)

```

```
deviceCli.commandCallback = myCommandCallback
```

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

## Screenshots Python script:



```
*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:\Users\DELL\AppData\Local\Programs\Python\Python38-32\ibm3.py ===
2022-11-19 22:25:18,524 ibmiotf.device.Client INFO Connected successfully: d:gw0bk3:NodeMCU:Anu
Published Weight = 35 Kg level = 21 % to IBM Watson
Published Weight = 9 Kg level = 5 % to IBM Watson
Published Weight = 95 Kg level = 98 % to IBM Watson
Published Weight = 68 Kg level = 20 % to IBM Watson
Published Weight = 59 Kg level = 94 % to IBM Watson
Published Weight = 34 Kg level = 17 % to IBM Watson
Published Weight = 48 Kg level = 52 % to IBM Watson
Published Weight = 80 Kg level = 15 % to IBM Watson
Published Weight = 70 Kg level = 11 % to IBM Watson
Published Weight = 19 Kg level = 37 % to IBM Watson
Published Weight = 56 Kg level = 45 % to IBM Watson
Published Weight = 30 Kg level = 59 % to IBM Watson
Published Weight = 23 Kg level = 68 % to IBM Watson
Published Weight = 94 Kg level = 3 % to IBM Watson
Published Weight = 45 Kg level = 29 % to IBM Watson
Published Weight = 37 Kg level = 13 % to IBM Watson
Published Weight = 27 Kg level = 41 % to IBM Watson
Published Weight = 12 Kg level = 35 % to IBM Watson
Published Weight = 68 Kg level = 97 % to IBM Watson
Published Weight = 90 Kg level = 100 % to IBM Watson
Published Weight = 98 Kg level = 54 % to IBM Watson
Published Weight = 18 Kg level = 53 % to IBM Watson
Published Weight = 29 Kg level = 54 % to IBM Watson
Published Weight = 58 Kg level = 55 % to IBM Watson
Published Weight = 57 Kg level = 9 % to IBM Watson
Published Weight = 34 Kg level = 59 % to IBM Watson
Published Weight = 90 Kg level = 19 % to IBM Watson
Published Weight = 76 Kg level = 69 % to IBM Watson
Published Weight = 30 Kg level = 46 % to IBM Watson
Published Weight = 86 Kg level = 75 % to IBM Watson
Published Weight = 34 Kg level = 50 % to IBM Watson
Published Weight = 54 Kg level = 11 % to IBM Watson
Published Weight = 22 Kg level = 65 % to IBM Watson
Published Weight = 35 Kg level = 7 % to IBM Watson
|
Ln: 5 Col: 0
```



