

### Develop a python script

Date	11 NOVEMBER 2022
Team ID	PNT2022TMID42919
Project Name	IoT Based Safety Gadget for Child Safety Monitoring & Notification

Step 1: Open python

idleStep2: Typetheprogr  
am

Step 3: Then click on file and save the

documentStep4: ThenclickonRun

thenRunModule

Step5: outputwillbeappearedintheidlewindow

# Pythonscript

```
import requestsimport j
son
import ibmiotf.applicationimport
ibmiotf.deviceimport time import
randomimport sys

#watsondevicedetails

organization="4yi0vc"devicType =
"BIN1"deviceId =
"BIN1ID"authMethod=
"token"authToken="123456789"

#generaterandomvaluesforrandomvariables(temperature&humidity)
```



```

def
    myCommandCallback(cmd):
        global print("commandreceived:%s"%cmd.data['command'])control
        ol=cmd.data['command']
        print(control)

try:
    deviceOptions={"org":organization,"type":devicType,"id":deviceId,"auth-method":authMethod,"auth-
token":authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)exceptExceptionase:
        print("caught exception connecting device %s"
        %str(e))sys.exit() #connectandsendadatapoint"temp"withvalueintegervalueintothecloudasatypeofeventforevery10secondsdeviceCli.connect()whileTrue:

distance= random.randint(10,70)loadcell=r
andom.randint(5,15)
data={'dist':distance,'load':loadcell}

if loadcell < 13 and loadcell >
    15:load="90% "

elif loadcell < 8 and loadcell >
    12:load="60% "

elif loadcell < 4 and loadcell >
    7:load="40% "

```

else:

```
load="0%"
```

```
if distance < 15:
```

```
    dist='Riskwarning:"Dumpster poundage getting high, Time to collect:)"90%'
```

```
elif distance < 40 and distance > 16:
```

```
    dist='Riskwarning:"dumpster is above 60%'
```

```
elif distance < 60 and distance > 41: dist='Riskwarning:"40%'
```

```
else:
```

```
    dist='Riskwarning:"17%'
```

```
if load == "90%" or distance == "90%": warn='alert:"Dumpster poundage getting high, Time to collect:)"elif load == "60%" o
```

```
    rdistance == "60%":
```

```
        warn= 'alert:' 'dumpster is above 60%' warn='alert:"Noneed to collect right now'
```

```
else:
```

```
def
```

```
    myOnPublishCallback(lat=10.678991, long=78.177731): print("Gandigramam, Karur")
```

```
    print("published distance=%s"% distance, "load cell: %s"% loadcell, "lon=%s"% long, "lat=%s"% lat) print(load) print(dist)
```

```
    print(warn)
```

```
time.sleep(10)
```

```
success=deviceCli.publishEvent("IoT Sensor", "json", warn, qos=0, on_publish=myOnPublishCallback)
```

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

```
if not success:
```

```
    print("not connected to  
ibmiot")  
    time.sleep(30)
```

```
    deviceCli.commandCallback=myCommandCallback#disco
```

```
    nnectthe device
```

```
    deviceCli.disconnect
```

The screenshot displays three Python IDE windows, each running a different script. The left window (ID 1) shows a script for generating random values for temperature and humidity. The middle window (ID 2) shows a script for connecting to Watson IoT and sending data points. The right window (ID 3) shows a script for connecting to Watson IoT and sending data points, with a console output showing risk warnings and device status.



