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Developapythonscript

Step 1: Open python idleStep2:Typetheprogra m
Step 3: Then click on file and save the documentStep4:ThenclickonRun thenRunModule
Step5:outputwillbeappearedintheidlewindow

Pythonscript

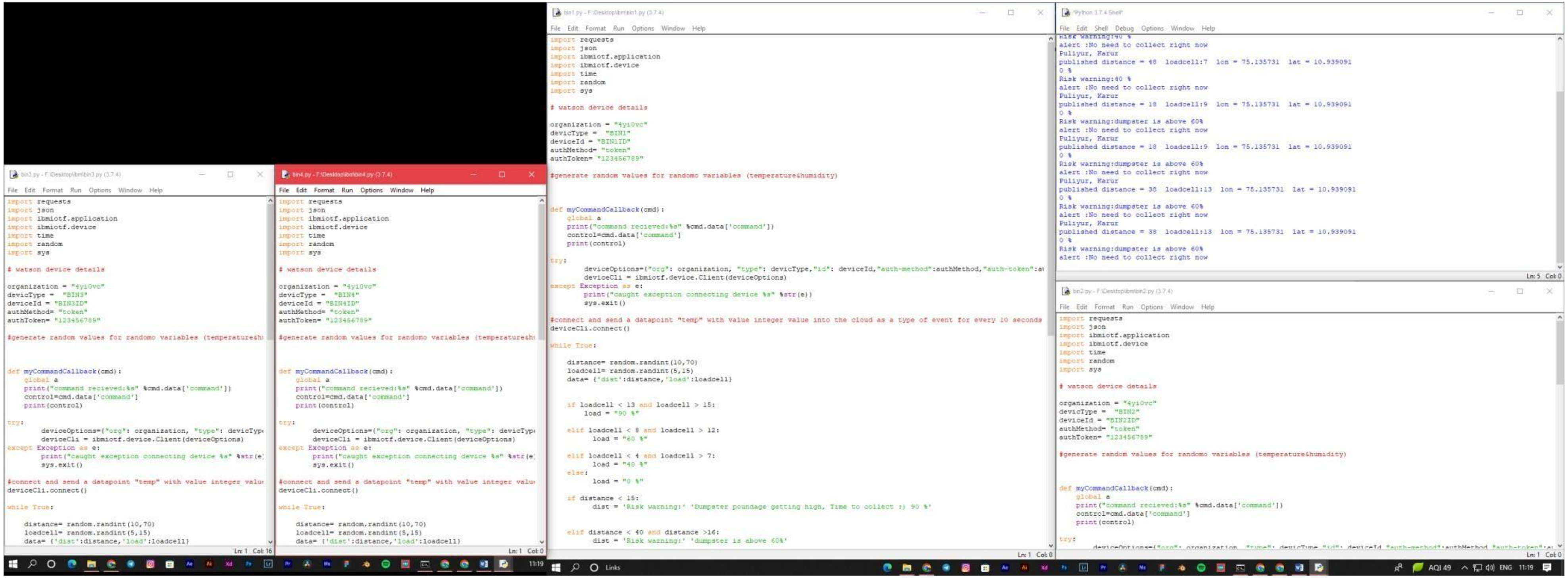
```
import
requestsimportj
son
import
ibmiotf.applicationimport
ibmiotf.deviceimporttime
import
randomimports
ys

#watsondevicedetails

organization="4yi0vc"de
vicType =
"BIN1"deviceId =
"BIN1ID"authMethod=
"token"authToken="12345
6789"

#generaterandomvaluesforrandomovariables(temperature&humidity)
```

```
def
    myCommandCallback(cmd):
    globala
    print("commandrecieved:%s"%cmd.data['command'])contr
    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%"

ifdistance<15:
      dist='Riskwarning:''Dumpsterpoundagegettinghigh,Timetocollect:)90%'


elifdistance<40anddistance>16:
      dist='Riskwarning:''dumpsterisabove60%'

elifdistance<60and distance>
      41:dist='Riskwarning:''40%'
else:
      dist='Riskwarning:''17%'




ifload=="90%"ordistance=="90%":
      warn='alert:''Dumpsterpoundagegettinghigh,Timetocollect:)'elifload=="60%"o

rdistance=="60%":

      warn= 'alert:' 'dumpsterisabove60%'
else:
      warn='alert:''Noneedtocollectrightnow'
def
    myOnPublishCallback(lat=10.678991,long=78.177731):prin
    t("Gandigramam,Karur")
    print("publisheddistance=%s"%distance,"loadcell:%s"%loadcell,"lon=%s"%long,"lat=%s"%lat)print(load)
    print(dist)
    print(warn)

time.sleep(10)


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

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



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




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

ScreenshotsPythonscript:


bin3.py - F:\Desktop\ibm\bin3.py (3.7.4)
File Edit Format Run Options Window Help
Ln: 1 Col: 16

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

# watson device details

organization = "4yi0vc"
devicType =  "BIN3"
deviceId = "BIN3ID"
authMethod= "token"
authToken= "123456789"

#generate random values for randomo variables (temperature&hu



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

try:
        deviceOptions={"org": organization, "type": devicTyp
        deviceCli = ibmiotf.device.Client(deviceOptions)
except Exception as e:
        print("caught exception connecting device %s" %str(e
        sys.exit()

#connect and send a datapoint "temp" with value integer valu
deviceCli.connect()

while True:

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

bin4.py - F:\Desktop\ibm\bin4.py (3.7.4)
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```
import requests
import json
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys

# watson device details

organization = "4yi0vc"
devicType =  "BIN4"
deviceId = "BIN4ID"
authMethod= "token"
authToken= "123456789"

#generate random values for randomo variables (temperature&hu



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

try:
        deviceOptions={"org": organization, "type": devicTyp
        deviceCli = ibmiotf.device.Client(deviceOptions)
except Exception as e:
        print("caught exception connecting device %s" %str(e
        sys.exit()

#connect and send a datapoint "temp" with value integer valu
deviceCli.connect()

while True:

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

bin1.py - F:\Desktop\ibm\bin1.py (3.7.4)
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```
import requests
import json
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys

# watson device details

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

#generate random values for randomo variables (temperature&humidity)



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

try:
        deviceOptions={"org": organization, "type": devicType,"id": deviceId,"auth-method":authMethod,"auth-token":a
        deviceCli = ibmiotf.device.Client(deviceOptions)
except Exception as e:
        print("caught exception connecting device %s" %str(e))
        sys.exit()

#connect and send a datapoint "temp" with value integer value into the cloud as a type of event for every 10 seconds
deviceCli.connect()

while True:

    distance= random.randint(10,70)
    loadcell= random.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 = 'Risk warning:' 'Dumpster poundage getting high, Time to collect :) 90 %'


    elif distance < 40 and distance >16:
          dist = 'Risk warning:' 'dumpster is above 60%'
```

```
Risk warning:40 %
alert :No need to collect right now
Puliyur, Karur
published distance = 48  loadcell:7  lon = 75.135731  lat = 10.939091
0 %
Risk warning:40 %
alert :No need to collect right now
Puliyur, Karur
published distance = 18  loadcell:9  lon = 75.135731  lat = 10.939091
0 %
Risk warning:dumpster is above 60%
alert :No need to collect right now
Puliyur, Karur
published distance = 18  loadcell:9  lon = 75.135731  lat = 10.939091
0 %
Risk warning:dumpster is above 60%
alert :No need to collect right now
Puliyur, Karur
published distance = 38  loadcell:13  lon = 75.135731  lat = 10.939091
0 %
Risk warning:dumpster is above 60%
alert :No need to collect right now
Puliyur, Karur
published distance = 38  loadcell:13  lon = 75.135731  lat = 10.939091
0 %
Risk warning:dumpster is above 60%
alert :No need to collect right now
```

bin2.py - F:\Desktop\ibm\bin2.py (3.7.4)
File Edit Format Run Options Window Help
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```
import requests
import json
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys

# watson device details

organization = "4yi0vc"
devicType =  "BIN2"
deviceId = "BIN2ID"
authMethod= "token"
authToken= "123456789"

#generate random values for randomo variables (temperature&humidity)



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

try:
        deviceOptions={"org": organization, "type": devicType,"id": deviceId,"auth-method":authMethod,"auth-token":a
```