Develop a python script

Team ID	PNT2022TMID38320
Project Name	Smart waste management system for metropolitan cities

Python script:

```
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,"authtoken":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 "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%'

 elif distance < 60 and distance > 41:

    dist = 'Risk warning:' '40 %'

 else:

    dist = 'Risk warning:' '17 %'

 if load == "90 %" or distance == "90 %":

    warn = 'alert :' ' Dumpster poundage getting high, Time to collect :)'

 elif load == "60 %" or distance == "60 %":

    warn = 'alert :' 'dumpster is above 60%'

 else :

    warn = 'alert :' 'No need to collect right now '

 def myOnPublishCallback(lat=10.678991,long=78.177731):

    print("Gandigramam, Karur")
    print("published distance = %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)

 if not success:

    print("not connected to ibmiot")

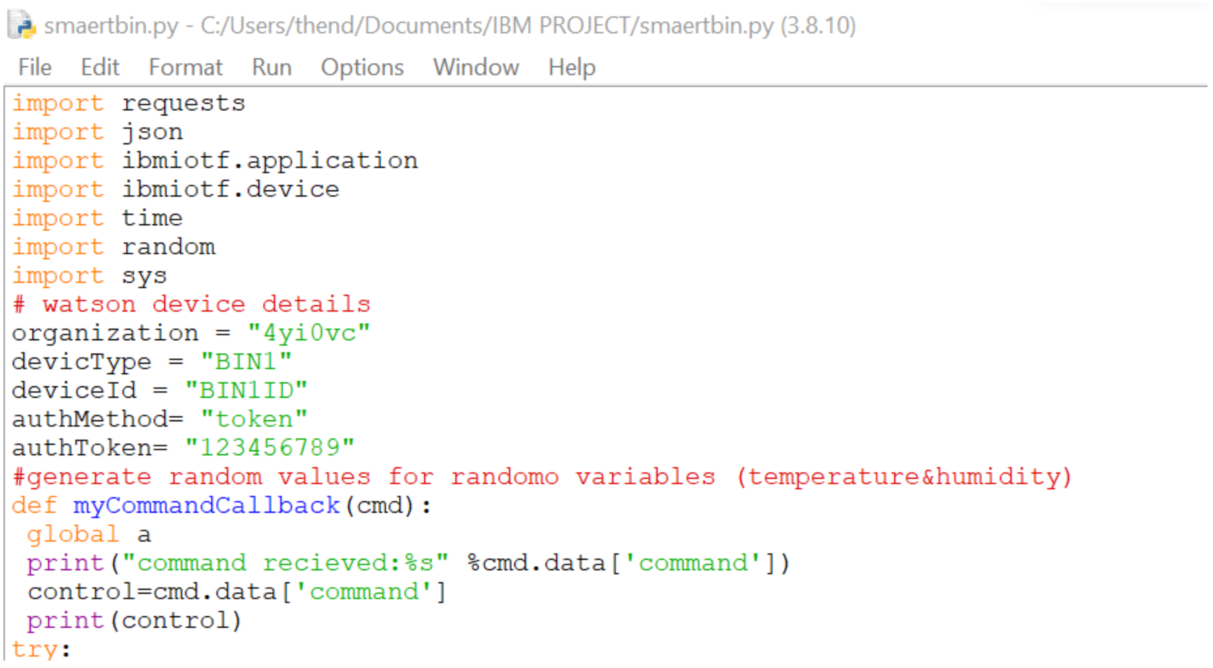
    time.sleep(30)

 deviceCli.commandCallback=myCommandCallback

#disconnect the device

deviceCli.disconnect
```

Snippet:


smaertbin.py - C:/Users/thend/Documents/IBM PROJECT/smaertbin.py (3.8.10)
File Edit Format Run Options Window Help

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import ibmiotf.application
import ibmiotf.device
import time
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 deviceOptions={"org": organization, "type": devicType,"id": deviceId,"auth-method":authMethod,"authtoken":authToken}
 deviceCli = ibmiotf.device.Client(deviceOptions)
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 elif loadcell < 8 and loadcell > 12:
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 elif loadcell < 4 and loadcell > 7:
     load = "40 %"
 else:

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%'

elif distance < 60 and distance > 41:
    dist = 'Risk warning:' '40 %'
else:
    dist = 'Risk warning:' '17 %'



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

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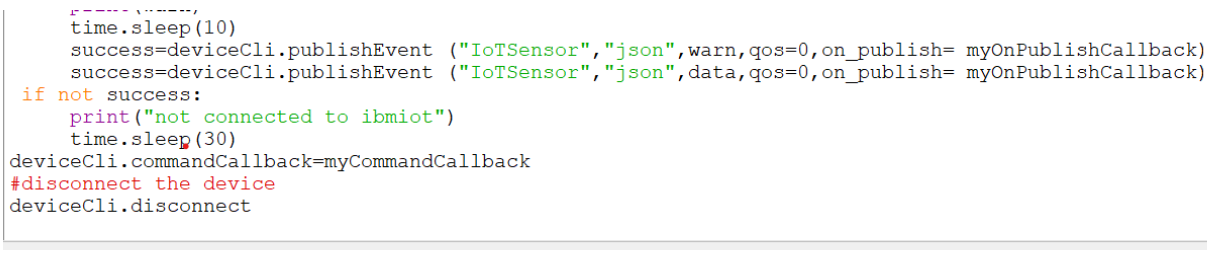
else :
    warn = 'alert :' 'No need to collect right now '
def myOnPublishCallback(lat=10.678991,long=78.177731):
    print("Gandigramam, Karur")
    print("published distance = %s " %distance,"loadcell:%s " %loadcell,"lon = %s " %long,"lat = %s" %lat)
    print(load)
    print(dist)
    print(warn)
```



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     time.sleep(10)
     success=deviceCli.publishEvent ("IoTSensor","json",warn,qos=0,on_publish= myOnPublishCallback)
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