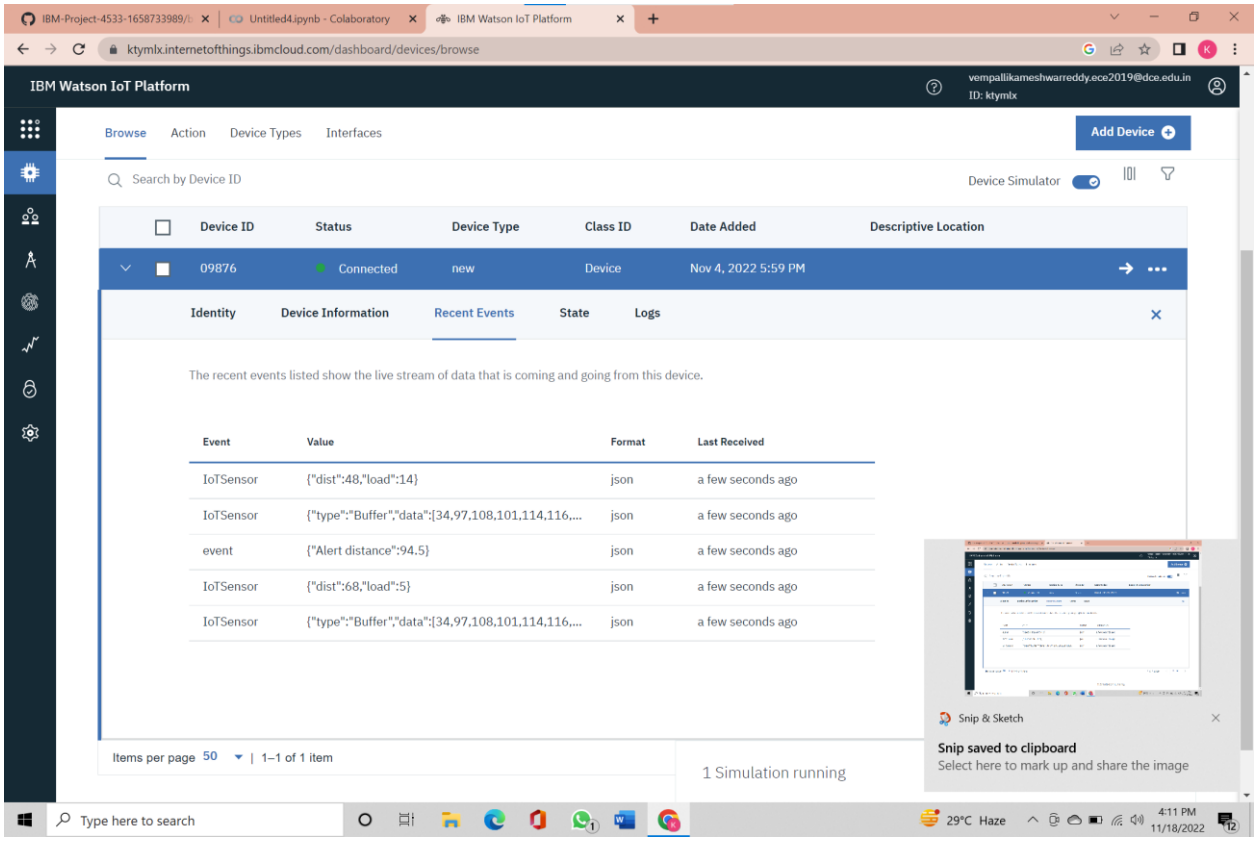
Develop a python script
Publish Data to the IBM Cloud

Date	09 November 2022
Team ID	PNT2022TMID28837
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITIAN CITIES
Maximum Marks	4 Marks



Program :

```
import requests
import json
import ibmiotf.application
```

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

# watson device details

organization = "ktymlx"
devicType =  "new"
deviceId = "09876"
authMethod= "token"
authToken= "Kamesh@2002"

#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,"aut
h-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 "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("chennai, ,manimangalam")
        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= myO
nPublishCallback)

    success=deviceCli.publishEvent ("IoTSensor","json",data,qos=0,on_publish= myO
nPublishCallback)



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



    deviceCli.commandCallback=myCommandCallback
#disconnect the device
deviceCli.disconnect()
```