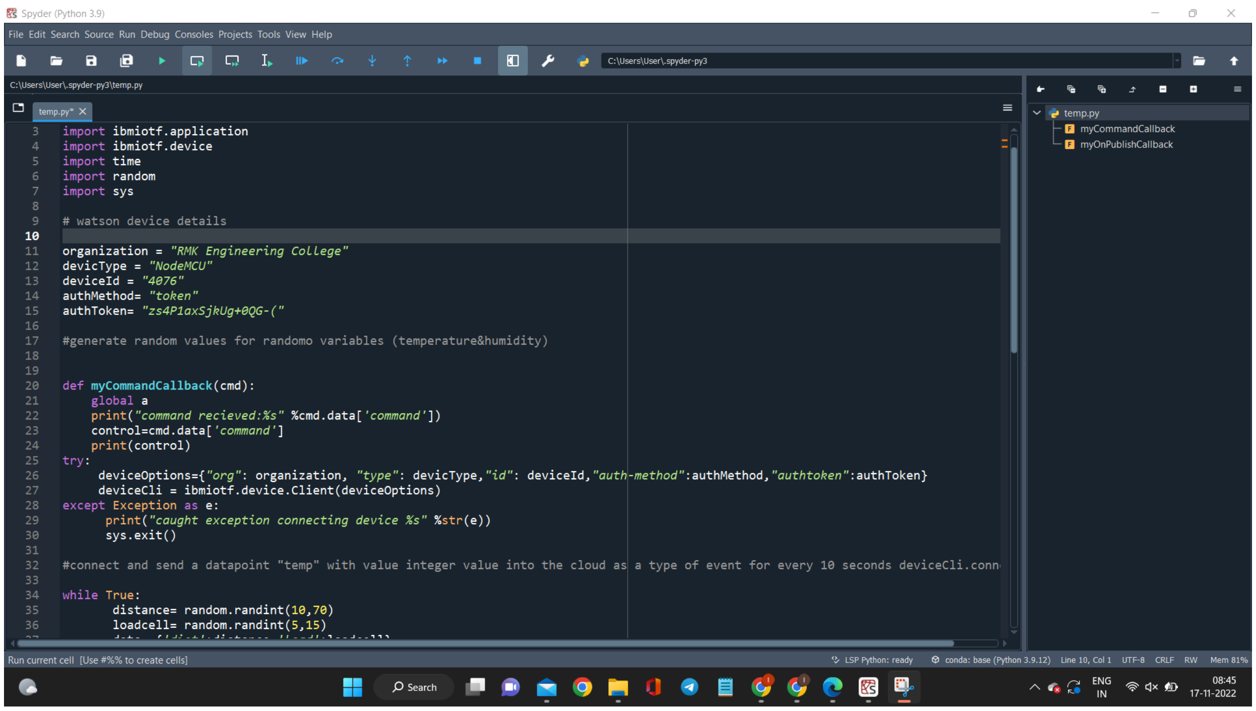
Develop A Python Script

Team ID	PNT2022TMID15698
Project Name	Smart Waste Management System

Step 1: Open python idle
Step 2: 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 requests
import json
import ibmiotf.application
import ibmiotf.device
import time
import random
import sys

# watson device details

organization = "RMK Engineering College"
devicType = "NodeMCU"
deviceId = "4076"
authMethod= "token"
authToken= "zs4P1axSjkUg+0QG-("

#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
```


Spyder (Python 3.9)
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\User\.spyder-py3
C:\Users\User\.spyder-py3\temp.py
temp.py*
temp.py
myCommandCallback
myOnPublishCallback
Run current cell [Use #%% to create cells]
LSP Python: ready
conda: base (Python 3.9.12)
Line 10, Col 1
UTF-8
CRLF
RW
Mem 81%
Search
ENG IN
08:45
17-11-2022

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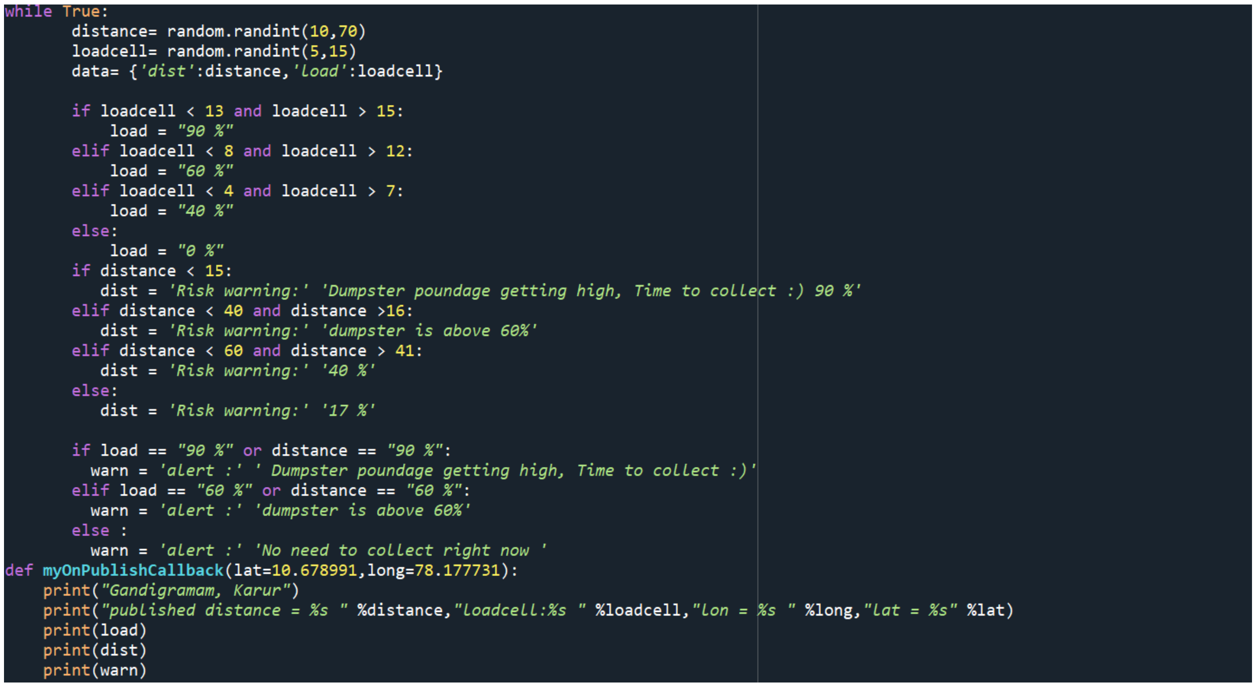

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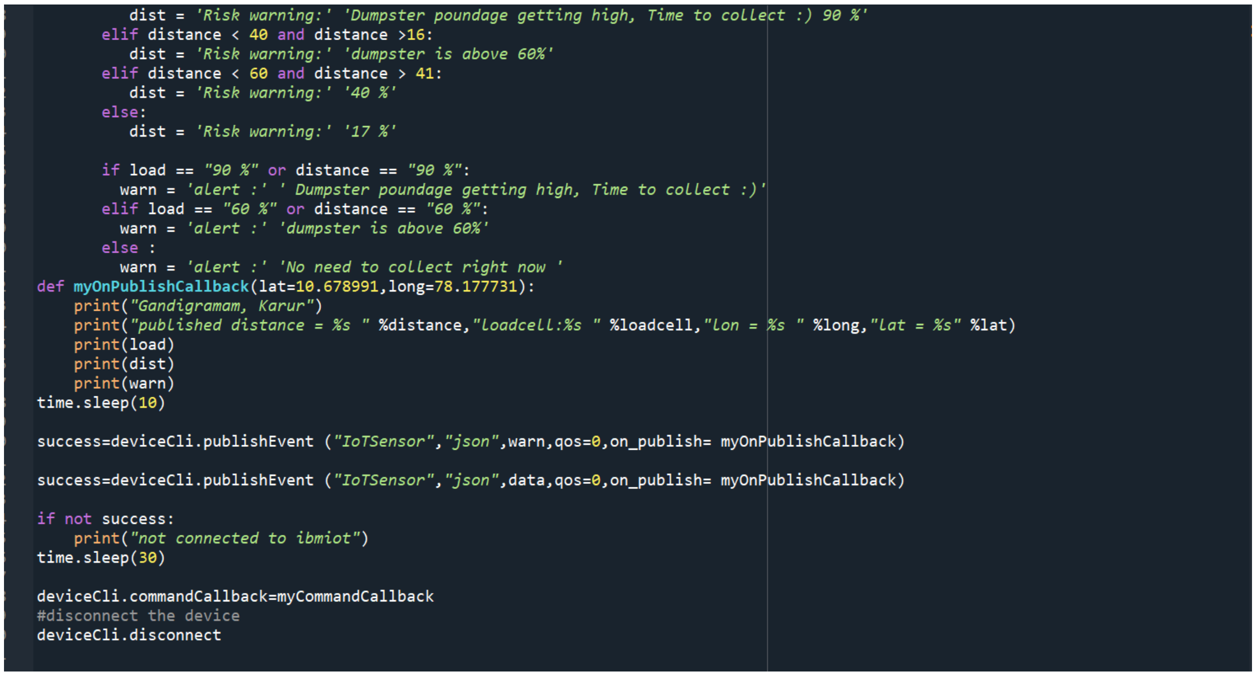

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