Sprint-1

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Team id	PNT2022TMID48397
Project Name	Smart Waste Management for Metropolitan Cities

Objective:

To develop a python script to generate random values which will act as input for the simulation process

Python code for publishing data to IBM cloud :

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

#Provide your IBM Watson Device Credentials
organization = "i1kqwd"
deviceType = "abcd"
deviceId = "12345"
authMethod = "token"
authToken = "@12345678"

# Initialize GPIO
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
```

```
   status=cmd.data['command']
   if status=="lighton":
      print ("led is on")
   elif status == "lightoff":
      print ("led is off")
   else :
      print ("please send proper command")

try:
        deviceOptions = {"org": organization, "type": deviceType,
"id": deviceId, "auth-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 "hello" with value "world" into
the cloud as an event of type "greeting" 10 times
deviceCli.connect()

while True:
      #Get Sensor Data from DHT11

      dist =random.randint(30,100)
      weight =random.randint(10,50)

      data = { 'distance' : dist, 'Weight': weight}
      #print data
      def myOnPublishCallback():
         print ("Published Distance = %s cm" % dist, "Weight = %s
kg " % weight, "to IBM Watson")
```

```
        success = deviceCli.publishEvent("IoTSensor", "json", data,
qos=0, on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
        time.sleep(10)

        deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```