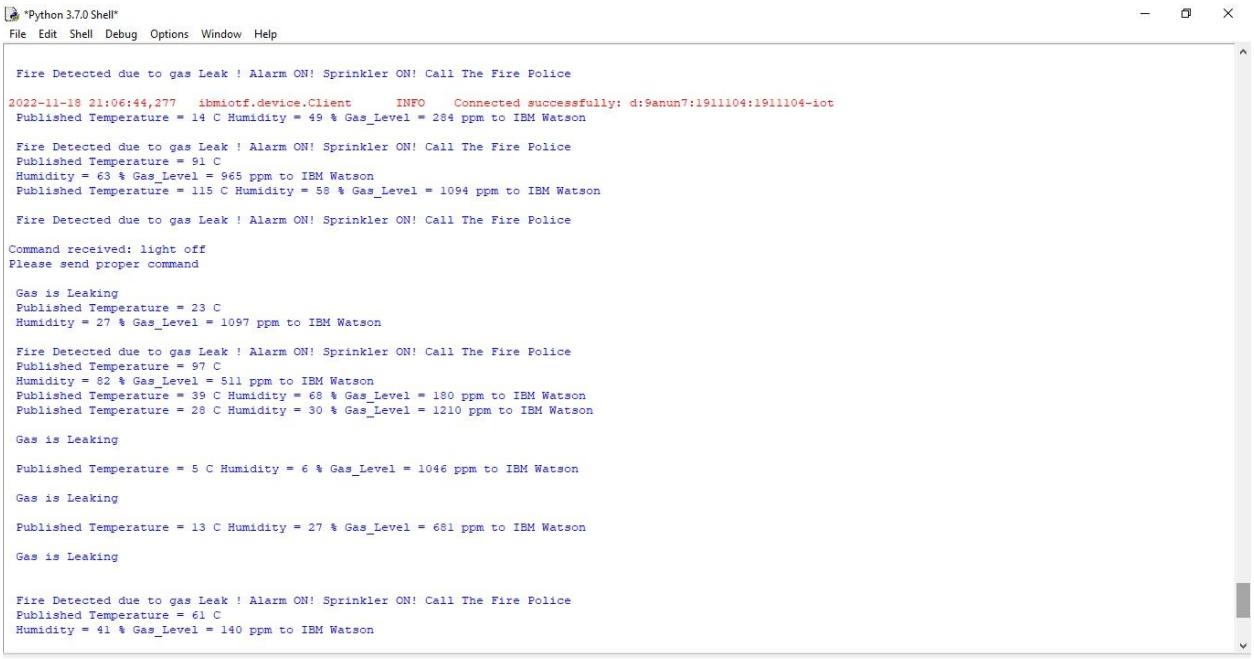
PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT 3

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

#Provide your IBM Watson Device Credentials
organization = "9anun7"
deviceType = "1911104"
deviceId = "1911104-iot"
authMethod = "token"
authToken = "12345678"

# Initialize GPIO

def myCommandCallback(cmd):
  print("Command received: %s" % cmd.data['command'])
 status=cmd.data['command']
 if status == "alarmon":
      print ("Alarm is on please all Evacuate Fans On")
 elif status == "alarmoff":
      print ("Alarm is off and Fans Off")
```

```
elif status == "sprinkleron":
    print ("Sprinkler is On Evacuate Faster")
elif status == "sprinkleroff":
    print("Sprinkler is Off")
else:
   print("Please send proper command")
#print(cmd)


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 random function
        temp=random.randint(0,120)
       Humid=random.randint(0,100)
       gas=random.randint(0,1500)
      data={'temp':temp,'Humid':Humid,'gas':gas}
```

```
      #print data
     def myOnPublishCallback():
          print (" Published Temperature = %s C" % temp, "Humidity = %s %%" %
Humid, "Gas_Level = %s ppm" %gas, "to IBM Watson")


          success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
      if not success:
          print("\n Not connected to IoTF")
    if temp>60 :
          print("\n Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call
The Fire Police \n")
elif gas>350:
          print("\n Gas is Leaking \n")


  time.sleep(10)
  deviceCli.commandCallback = myCommandCallback
# Disconnect the device and application from the cloud
deviceCli.disconnect()
```


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police
2022-11-18 21:06:44,277 ibmiotf.device.Client INFO Connected successfully: d:9anun7:1911104:1911104-iot
Published Temperature = 14 C Humidity = 49 % Gas_Level = 284 ppm to IBM Watson
Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police
Published Temperature = 91 C
Humidity = 63 % Gas_Level = 965 ppm to IBM Watson
Published Temperature = 115 C Humidity = 58 % Gas_Level = 1094 ppm to IBM Watson
Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police
Command received: light off
Please send proper command
Gas is Leaking
Published Temperature = 23 C
Humidity = 27 % Gas_Level = 1097 ppm to IBM Watson
Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police
Published Temperature = 97 C
Humidity = 82 % Gas_Level = 511 ppm to IBM Watson
Published Temperature = 39 C Humidity = 68 % Gas_Level = 180 ppm to IBM Watson
Published Temperature = 28 C Humidity = 30 % Gas_Level = 1210 ppm to IBM Watson
Gas is Leaking
Published Temperature = 5 C Humidity = 6 % Gas_Level = 1046 ppm to IBM Watson
Gas is Leaking
Published Temperature = 13 C Humidity = 27 % Gas_Level = 681 ppm to IBM Watson
Gas is Leaking
Fire Detected due to gas Leak ! Alarm ON! Sprinkler ON! Call The Fire Police
Published Temperature = 61 C
Humidity = 41 % Gas_Level = 140 ppm to IBM Watson