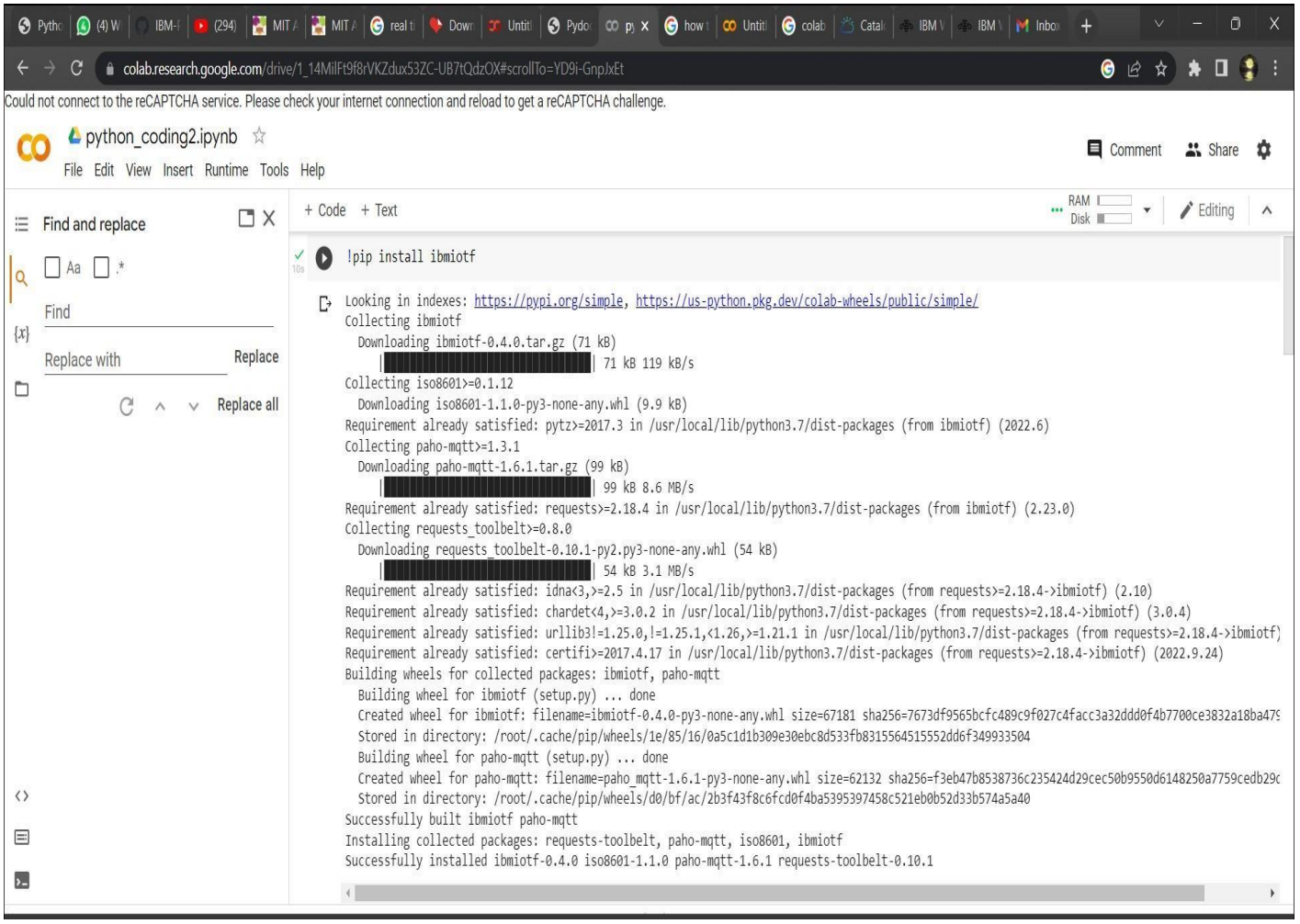
PYTHON OUTPUT

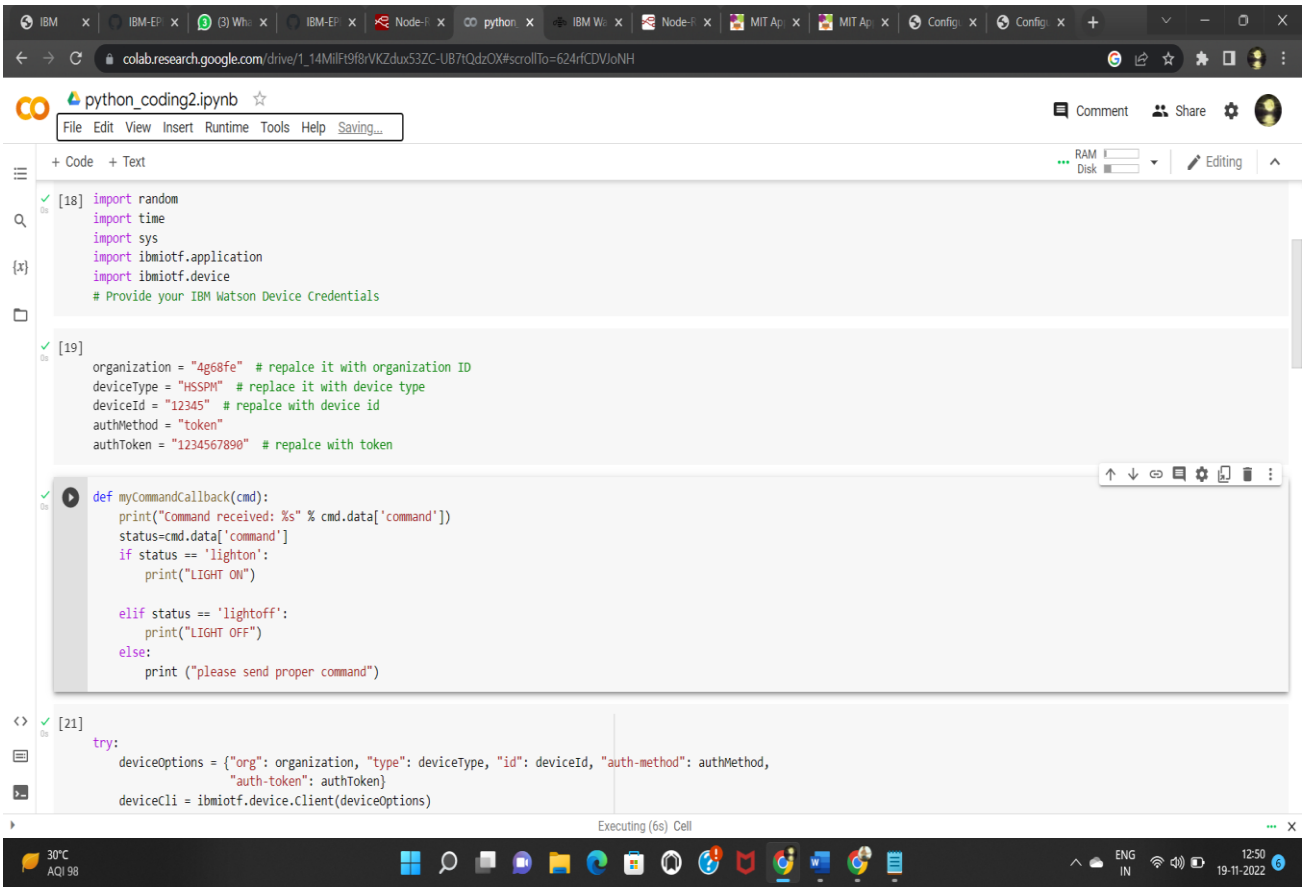
Project Title: Real Time River water quality monitoring and Control system

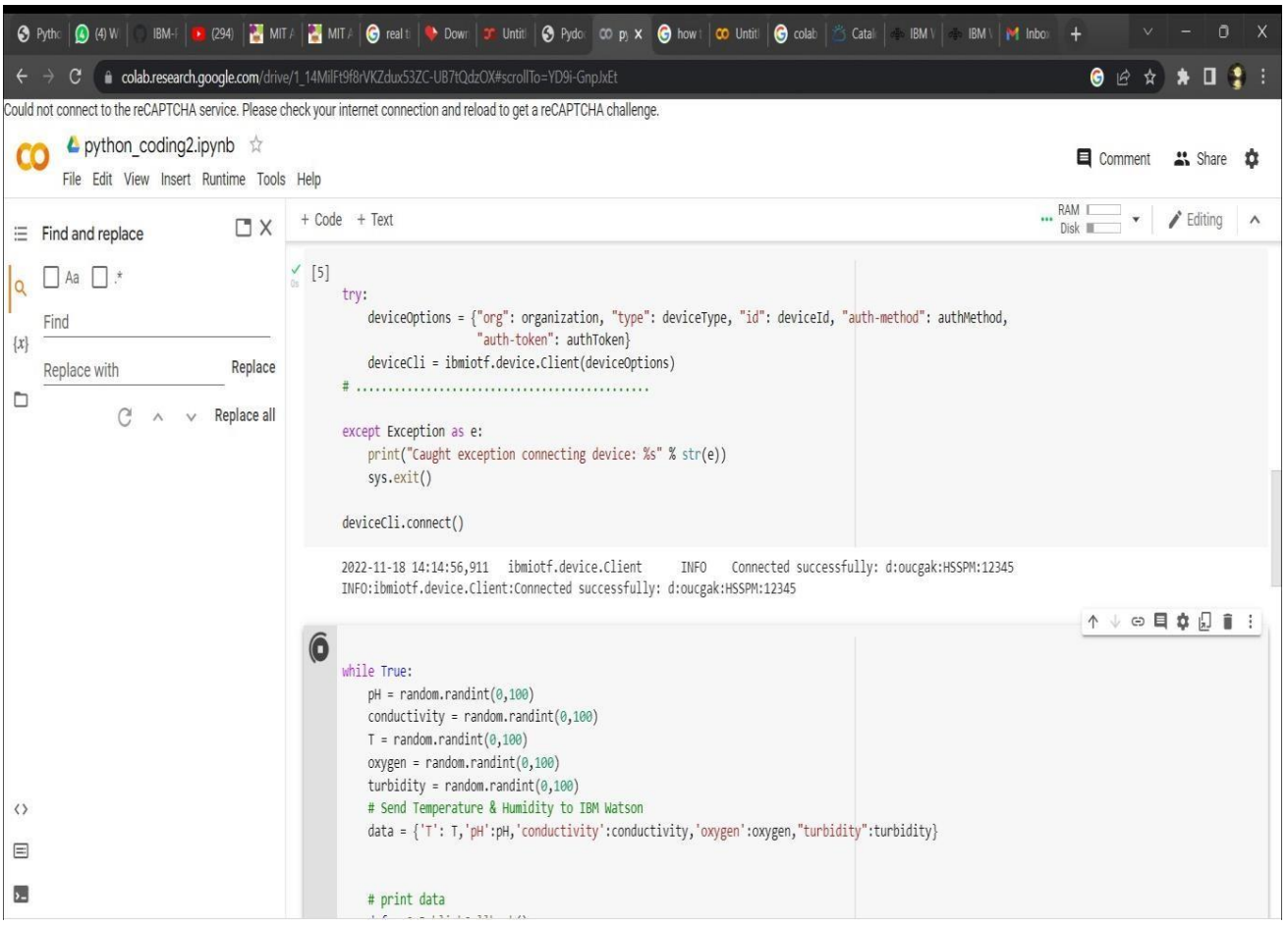
Team ID: PNT2022TMID06145

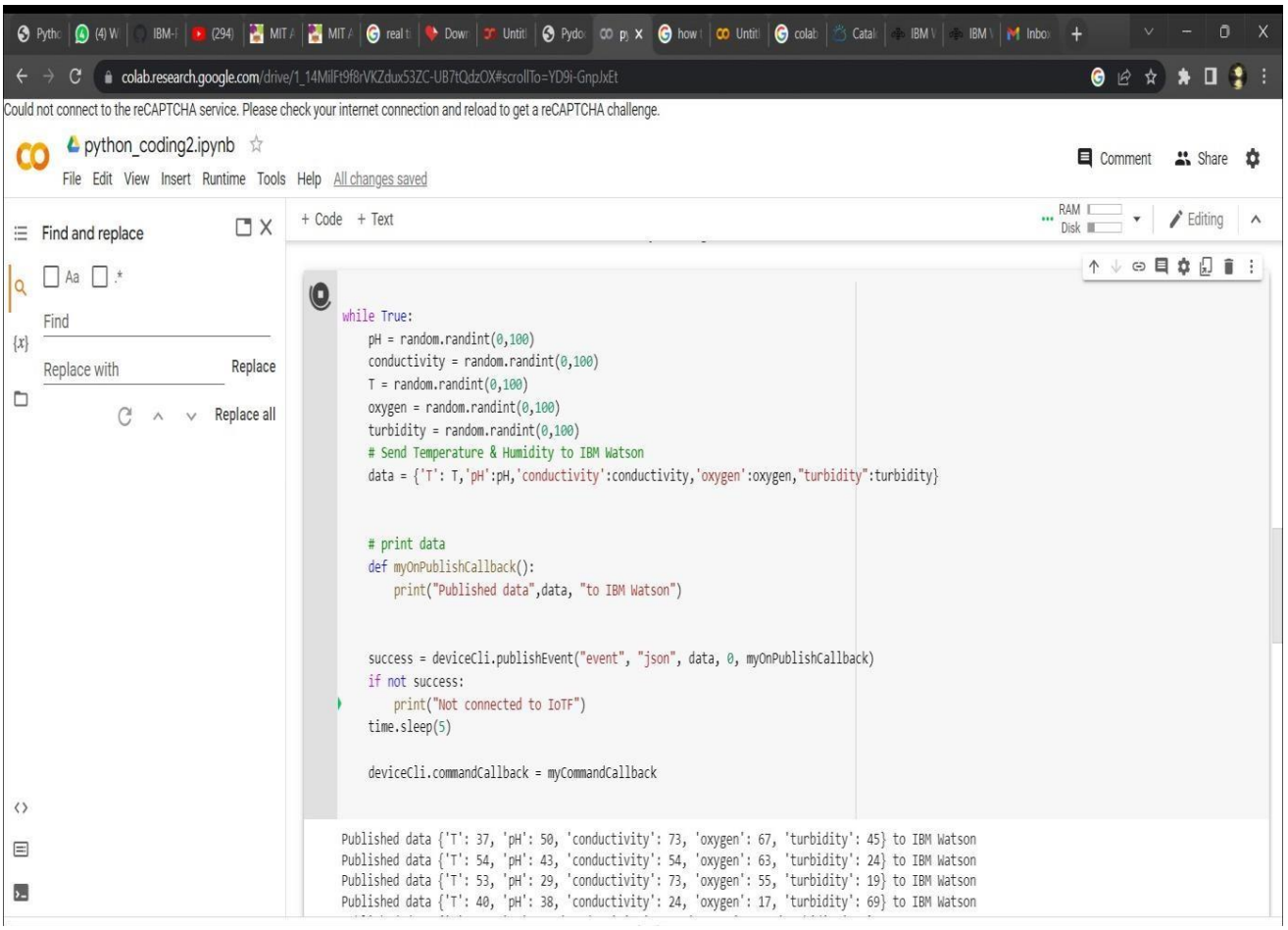
Team Members:

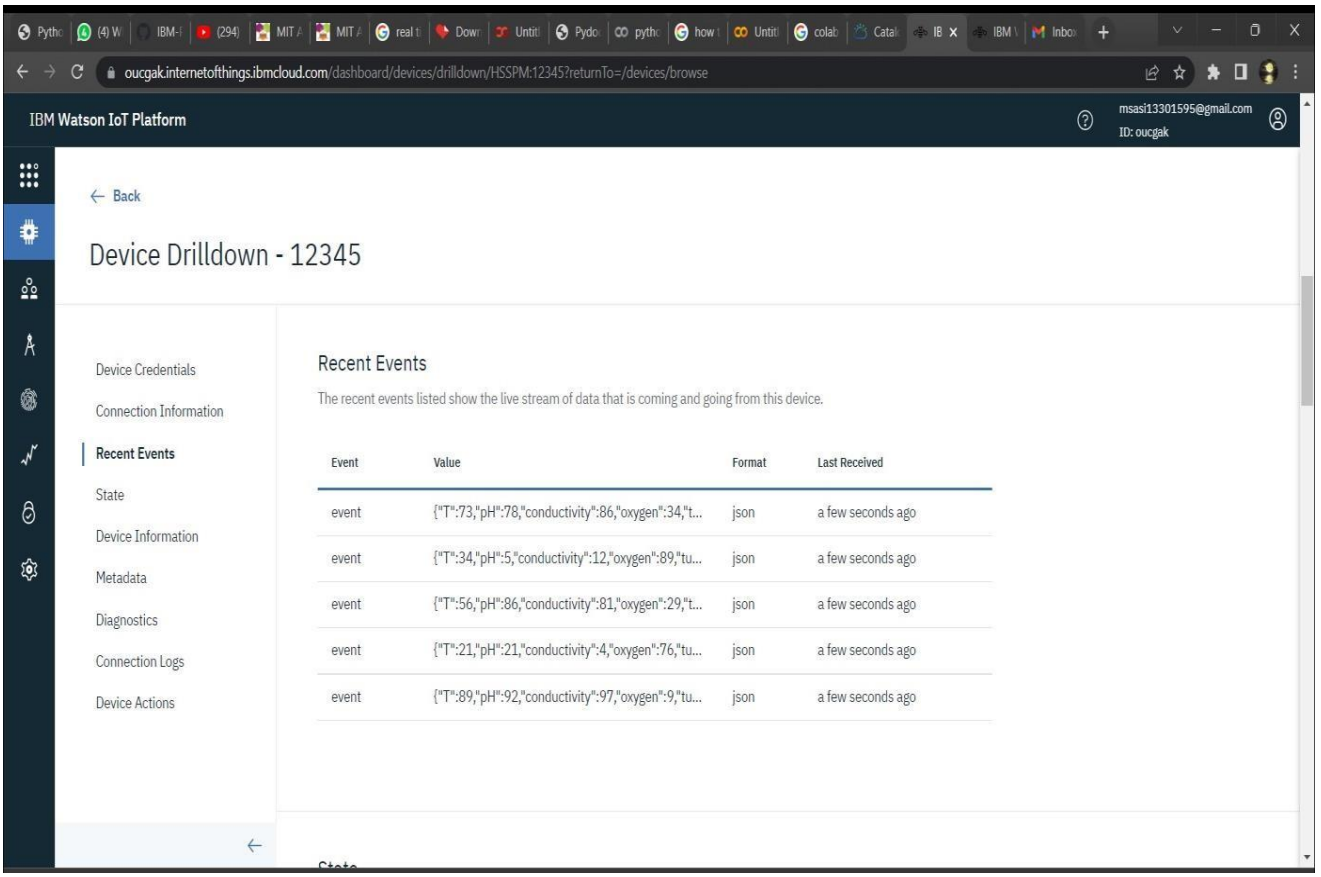
1. Hari RaamaKrishnan S- Team Leader
2. Saran R -Team Member
3. Sasikumar M- Team Member
4. Parthasarathi S – Team Member
5. Mohammed Alla Pitchai M- Team Member

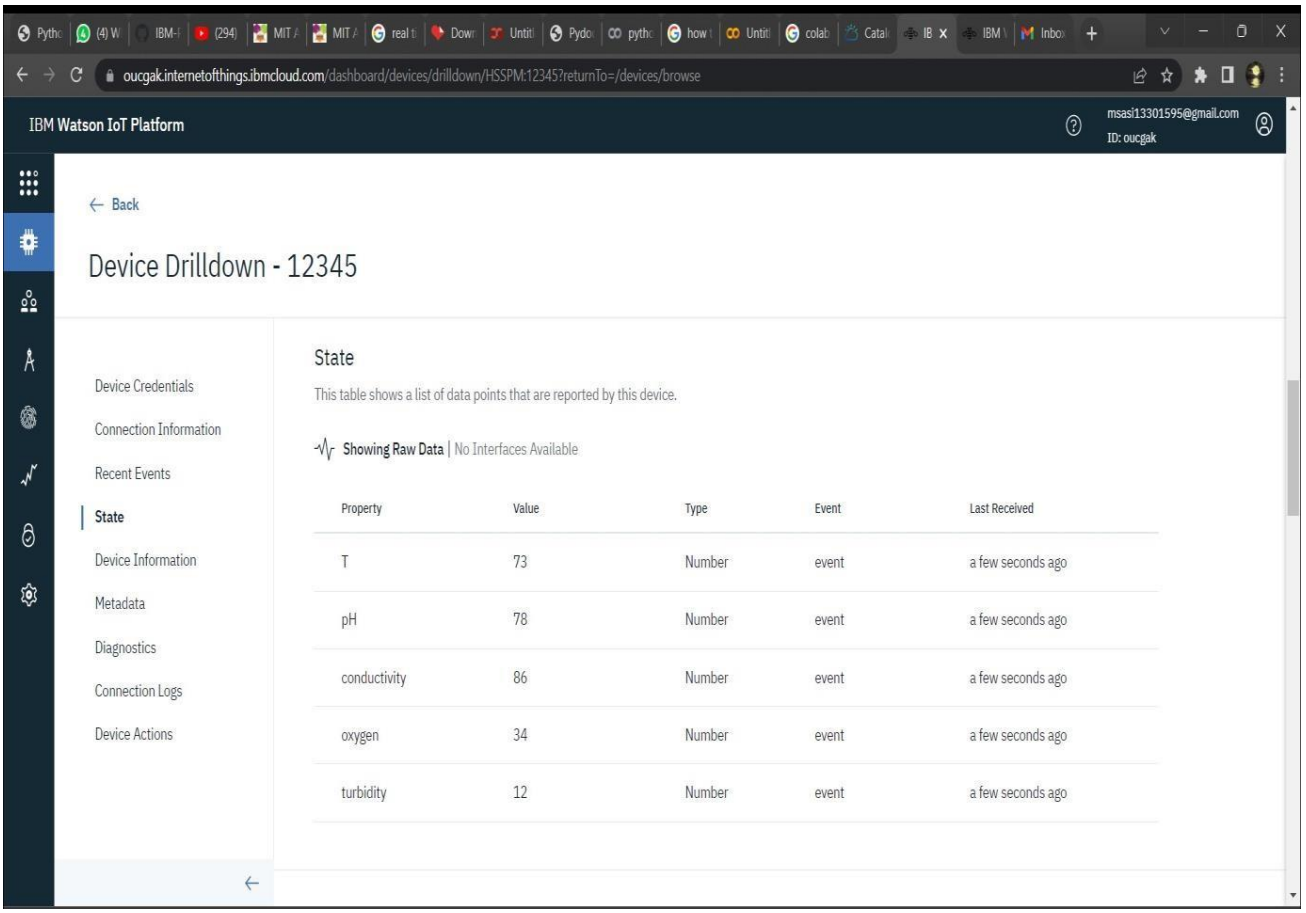



colab.research.google.com/drive/1_14MilFt9f8rVKZdux53ZC-UB7tQdzOX#scrollTo=624rfCDVJoNH
python_coding2.ipynb
File Edit View Insert Runtime Tools Help Saving...
Comment
Share
+ Code + Text
RAM
Disk
Editing
[18] import random
import time
import sys
import ibmiotf.application
import ibmiotf.device
# Provide your IBM Watson Device Credentials
[19]
organization = "4g68fe" # repalce it with organization ID
deviceType = "HSSPM" # replace it with device type
deviceId = "12345" # repalce with device id
authMethod = "token"
authToken = "1234567890" # repalce with token
def myCommandCallback(cmd):
print("Command received: %s" % cmd.data['command'])
status=cmd.data['command']
if status == 'lighton':
print("LIGHT ON")
elif status == 'lightoff':
print("LIGHT OFF")
else:
print ("please send proper command")
[21]
try:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod,
"auth-token": authToken}
deviceCli = ibmiotf.device.Client(deviceOptions)
Executing (6s) Cell
30°C
AQI 98
ENG
IN
12:50
19-11-2022


colab.research.google.com/drive/1_14MilFt9f8rVKZdux53ZC-UB7tQdzOX#scrollTo=YD9i-GnpJxEt
Could not connect to the reCAPTCHA service. Please check your internet connection and reload to get a reCAPTCHA challenge.
python_coding2.ipynb
File Edit View Insert Runtime Tools Help
Comment
Share
Find and replace
Find
Replace with
Replace
Replace all
+ Code + Text
RAM
Disk
Editing
[5]
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()
deviceCli.connect()
2022-11-18 14:14:56,911 ibmiotf.device.Client INFO Connected successfully: d:oucgak:HSSPM:12345
INFO:ibmiotf.device.Client:Connected successfully: d:oucgak:HSSPM:12345
while True:
pH = random.randint(0,100)
conductivity = random.randint(0,100)
T = random.randint(0,100)
oxygen = random.randint(0,100)
turbidity = random.randint(0,100)
# Send Temperature & Humidity to IBM Watson
data = {'T': T,'pH':pH,'conductivity':conductivity,'oxygen':oxygen,"turbidity":turbidity}
# print data


colab.research.google.com/drive/1_14MilFt9f8rVKZdux53ZC-UB7tQdzOX#scrollTo=YD9i-GnpJxEt
Could not connect to the reCAPTCHA service. Please check your internet connection and reload to get a reCAPTCHA challenge.
python_coding2.ipynb
File Edit View Insert Runtime Tools Help All changes saved
Comment
Share
Find and replace
Find
Replace with
Replace
Replace all
+ Code + Text
RAM
Disk
Editing
while True:
pH = random.randint(0,100)
conductivity = random.randint(0,100)
T = random.randint(0,100)
oxygen = random.randint(0,100)
turbidity = random.randint(0,100)
# Send Temperature & Humidity to IBM Watson
data = {'T': T,'pH':pH,'conductivity':conductivity,'oxygen':oxygen,"turbidity":turbidity}
# print data
def myOnPublishCallback():
print("Published data",data, "to IBM Watson")
success = deviceCli.publishEvent("event", "json", data, 0, myOnPublishCallback)
if not success:
print("Not connected to IoTF")
time.sleep(5)
deviceCli.commandCallback = myCommandCallback
Published data {'T': 37, 'pH': 50, 'conductivity': 73, 'oxygen': 67, 'turbidity': 45} to IBM Watson
Published data {'T': 54, 'pH': 43, 'conductivity': 54, 'oxygen': 63, 'turbidity': 24} to IBM Watson
Published data {'T': 53, 'pH': 29, 'conductivity': 73, 'oxygen': 55, 'turbidity': 19} to IBM Watson
Published data {'T': 40, 'pH': 38, 'conductivity': 24, 'oxygen': 17, 'turbidity': 69} to IBM Watson


oucgak.internetofthings.ibmcloud.com/dashboard/devices/drilldown/HSSPM:12345?returnTo=/devices/browse
IBM Watson IoT Platform
msasi13301595@gmail.com
ID: oucgak
Back
Device Drilldown - 12345
Device Credentials
Connection Information
Recent Events
State
Device Information
Metadata
Diagnostics
Connection Logs
Device Actions
Recent Events
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
event
{"T":73,"pH":78,"conductivity":86,"oxygen":34,"t...
json
a few seconds ago
event
{"T":34,"pH":5,"conductivity":12,"oxygen":89,"tu...
json
a few seconds ago
event
{"T":56,"pH":86,"conductivity":81,"oxygen":29,"t...
json
a few seconds ago
event
{"T":21,"pH":21,"conductivity":4,"oxygen":76,"tu...
json
a few seconds ago
event
{"T":89,"pH":92,"conductivity":97,"oxygen":9,"tu...
json
a few seconds ago


oucgak.internetofthings.ibmcloud.com/dashboard/devices/drilldown/HSSPM:12345?returnTo=/devices/browse
IBM Watson IoT Platform
msasi13301595@gmail.com
ID: oucgak
Back
Device Drilldown - 12345
Device Credentials
Connection Information
Recent Events
State
Device Information
Metadata
Diagnostics
Connection Logs
Device Actions
State
This table shows a list of data points that are reported by this device.
Showing Raw Data | No Interfaces Available
Property Value Type Event Last Received
T 73 Number event a few seconds ago
pH 78 Number event a few seconds ago
conductivity 86 Number event a few seconds ago
oxygen 34 Number event a few seconds ago
turbidity 12 Number event a few seconds ago