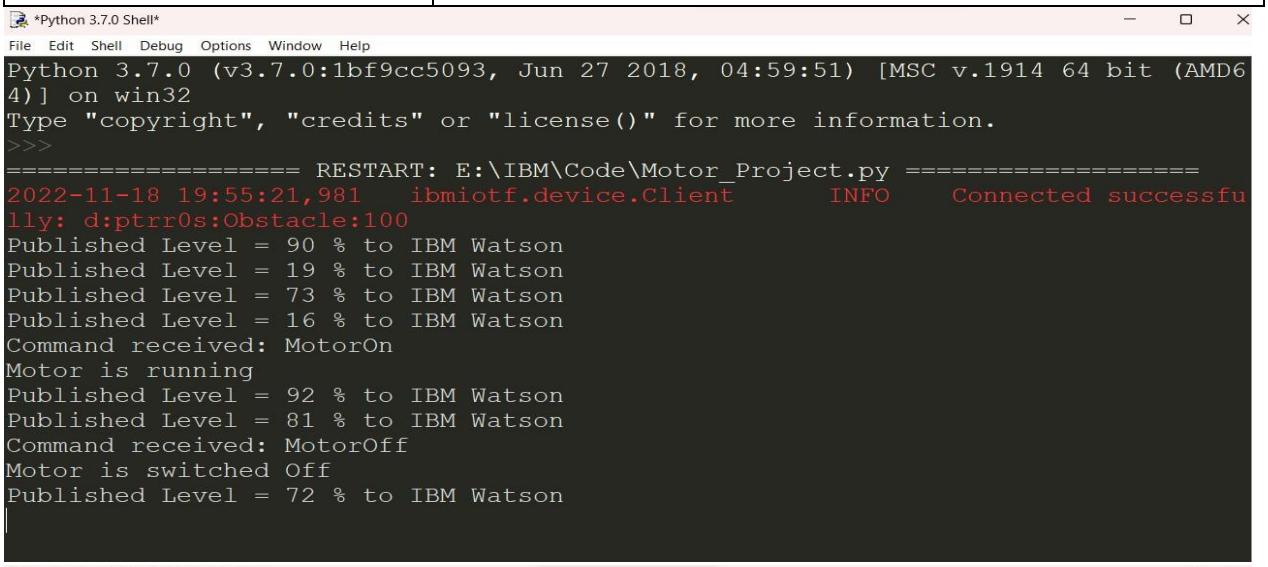
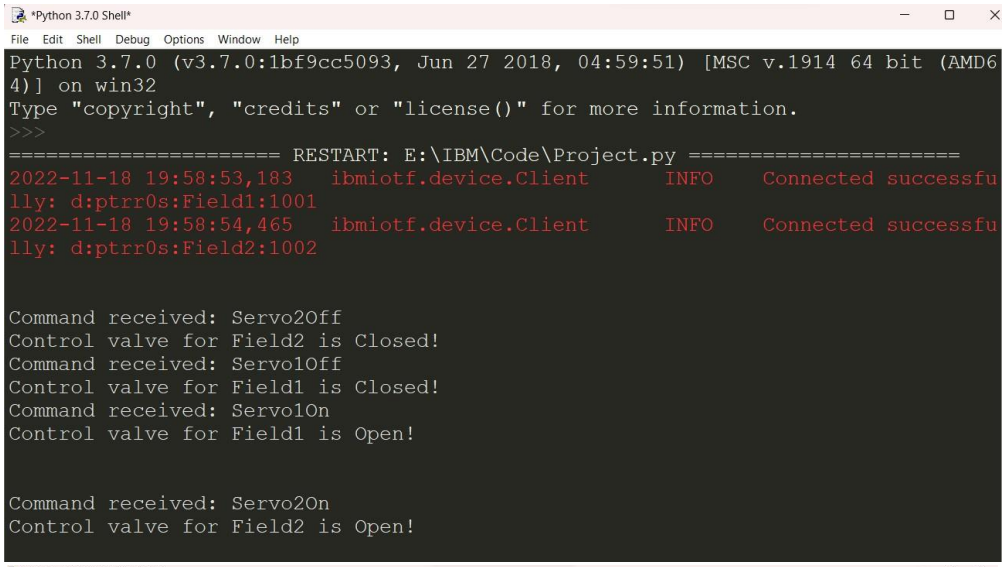
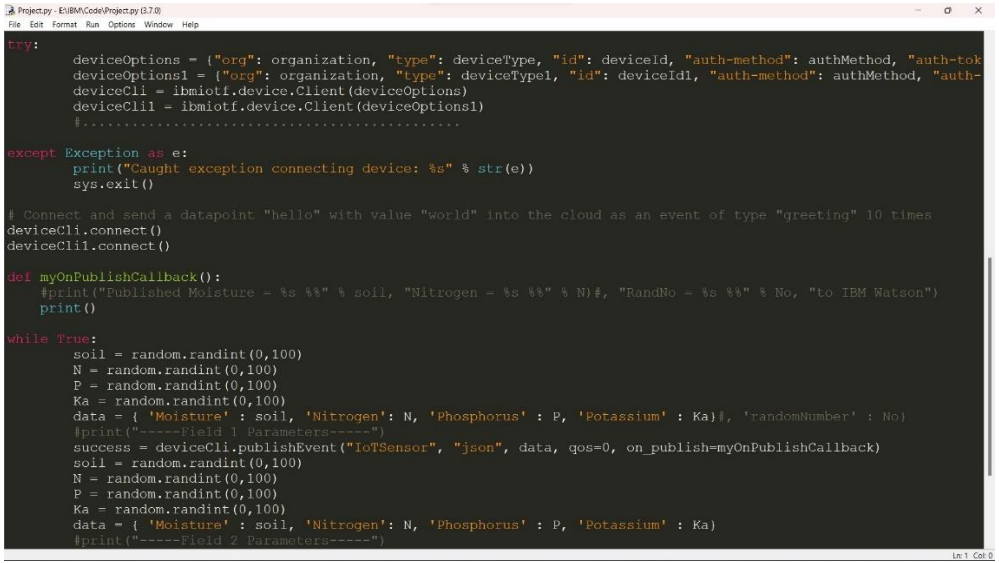
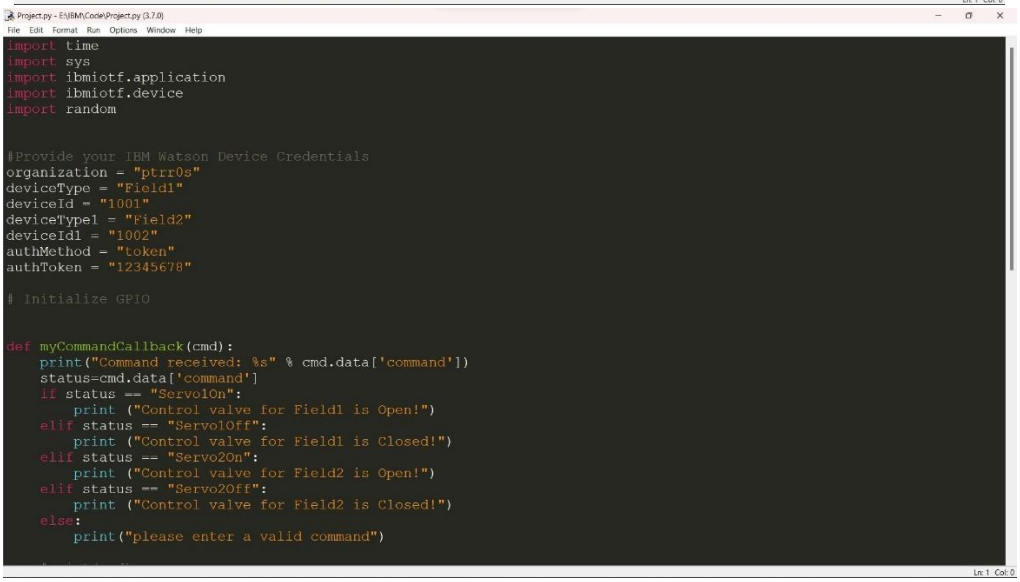
SPRINT 1

Date	28 OCTOBER 2022
Team ID	PNT2022TMID18437
Project Name	Smart Farmer-IOT Enabled Smart Farming Application




Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: E:\IBM\Code\Project.py ==========
2022-11-18 19:58:53,183 ibmiotf.device.Client INFO Connected successfully: d:ptrr0s:Field1:1001
2022-11-18 19:58:54,465 ibmiotf.device.Client INFO Connected successfully: d:ptrr0s:Field2:1002
Command received: Servo2Off
Control valve for Field2 is Closed!
Command received: Servo1Off
Control valve for Field1 is Closed!
Command received: Servo1On
Control valve for Field1 is Open!
Command received: Servo2On
Control valve for Field2 is Open!


Project.py - E:\IBM\Code\Project.py (3.7.0)
File Edit Format Run Options Window Help
try:
deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-tok
deviceOptions1 = {"org": organization, "type": deviceType1, "id": deviceId1, "auth-method": authMethod, "auth-
deviceCli = ibmiotf.device.Client(deviceOptions)
deviceCli1 = ibmiotf.device.Client(deviceOptions1)
#.....
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()
deviceCli1.connect()
def myOnPublishCallback():
#print("Published Moisture = %s %%" % soil, "Nitrogen = %s %%" % N)#, "RandNo = %s %%" % No, "to IBM Watson")
print()
while True:
soil = random.randint(0,100)
N = random.randint(0,100)
P = random.randint(0,100)
Ka = random.randint(0,100)
data = { 'Moisture' : soil, 'Nitrogen': N, 'Phosphorus' : P, 'Potassium' : Ka}#, 'randomNumber' : No}
#print("-----Field 1 Parameters-----")
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0, on_publish=myOnPublishCallback)
soil = random.randint(0,100)
N = random.randint(0,100)
P = random.randint(0,100)
Ka = random.randint(0,100)
data = { 'Moisture' : soil, 'Nitrogen': N, 'Phosphorus' : P, 'Potassium' : Ka}
#print("-----Field 2 Parameters-----")
Ln: 1 Col: 0


Project.py - E:\IBM\Code\Project.py (3.7.0)
File Edit Format Run Options Window Help
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
#Provide your IBM Watson Device Credentials
organization = "ptrr0s"
deviceType = "Field1"
deviceId = "1001"
deviceType1 = "Field2"
deviceId1 = "1002"
authMethod = "token"
authToken = "12345678"
# Initialize GPIO
def myCommandCallback(cmd):
print("Command received: %s" % cmd.data['command'])
status=cmd.data['command']
if status == "Servo1On":
print ("Control valve for Field1 is Open!")
elif status == "Servo1Off":
print ("Control valve for Field1 is Closed!")
elif status == "Servo2On":
print ("Control valve for Field2 is Open!")
elif status == "Servo2Off":
print ("Control valve for Field2 is Closed!")
else:
print("please enter a valid command")
Ln: 1 Col: 0