PROJECT DEVELOPMENT PHASE

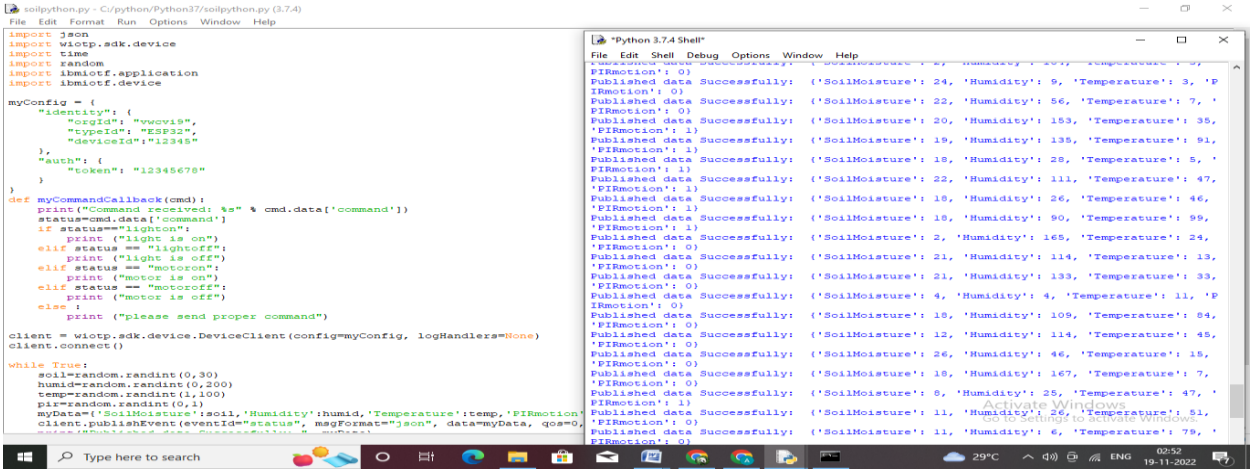
Date	19 November 2022
Team ID	PNT2022TMID03479
Project Name	Project - IoT Based Smart Crop Protection System for Agriculture

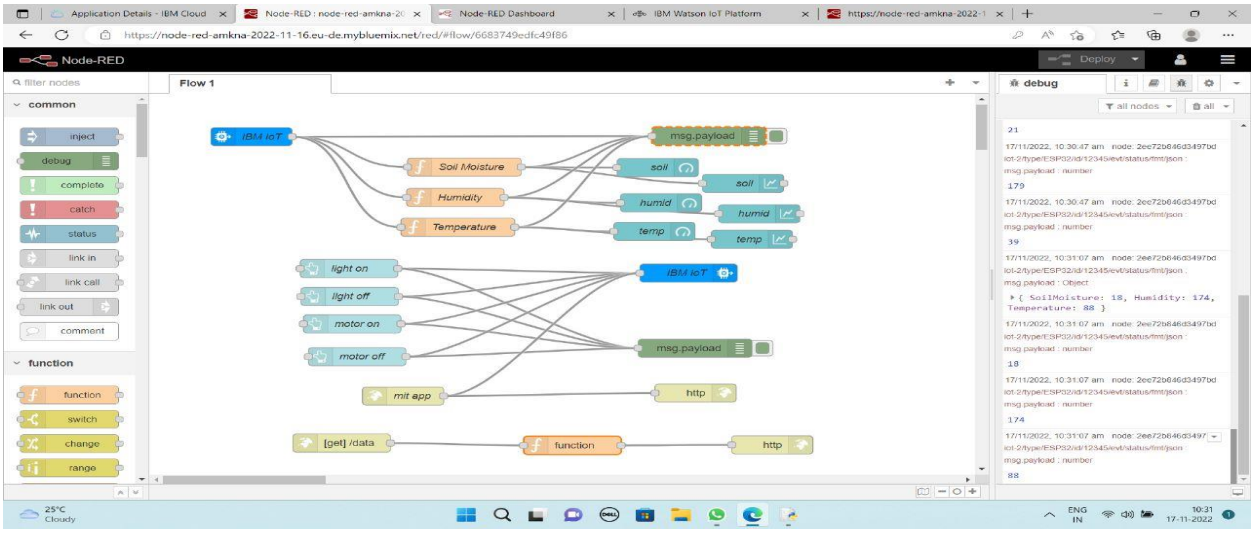
SPRINT – 4:

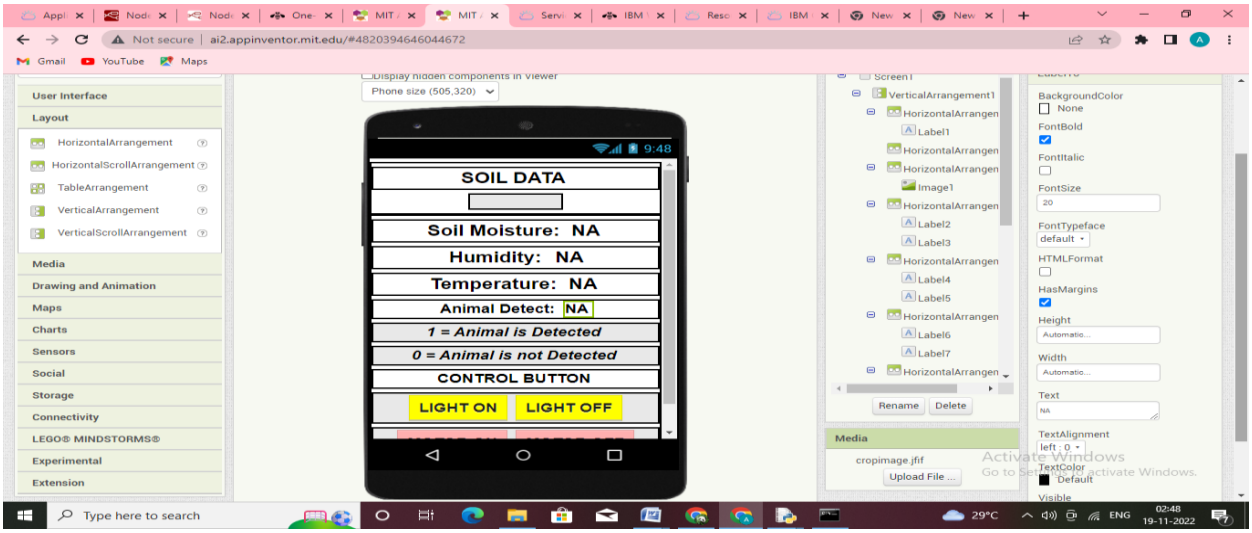
PROGRAM:

```
import json
import wiotp.sdk.device
import time
import random
import ibmiotf.application
import ibmiotf.device

myConfig = {
    "identity": {
        "orgId": "vwcvi9",
        "typeId": "ESP32",
        "deviceId":"12345"
    },
    "auth": {
        "token": "12345678"
    }
}
def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="lighton":
        print ("light is on")
    elif status == "lightoff":
        print ("light is off")
    elif status == "motoron":
        print ("motor is on")
    elif status == "motoroff":
        print ("motor is off")
    else :
        print ("please send proper command")

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    soil=random.randint(0,30)
    humid=random.randint(0,200)
    temp=random.randint(1,100)
    pir=random.randint(0,1)
```

```
myData={'SoilMoisture':soil,'Humidity':humid,'Temperature':temp,'PIRmotion
':pir}
    client.publishEvent(eventId="status", msgFormat="json", data=myData,
qos=0, onPublish=None)
    print("Published data Successfully: ", myData)
    time.sleep(20)

    client.commandCallback = myCommandCallback

client.disconnect()
```



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User Interface
Layout
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HorizontalScrollArrangement
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VerticalArrangement
VerticalScrollArrangement
Media
Drawing and Animation
Maps
Charts
Sensors
Social
Storage
Connectivity
LEGO® MINDSTORMS®
Experimental
Extension
Phone size (505,320)
9:48
SOIL DATA
Soil Moisture: NA
Humidity: NA
Temperature: NA
Animal Detect: NA
1 = Animal is Detected
0 = Animal is not Detected
CONTROL BUTTON
LIGHT ON
LIGHT OFF
Screen1
VerticalArrangement1
Label1
Image1
Label2
Label3
Label4
Label5
Label6
Label7
Rename
Delete
Media
cropimage.jfif
Upload File ...
BackgroundColor
None
FontBold
FontItalic
FontSize
FontTypeface
default
HTMLFormat
HasMargins
Height
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Type here to search
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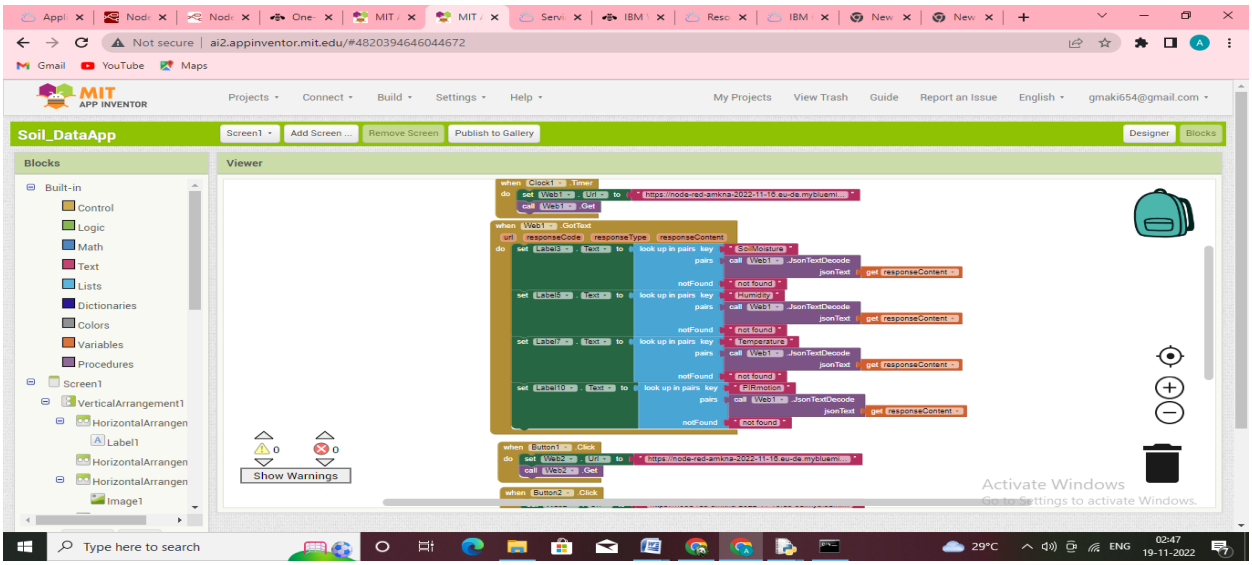
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Screen1
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