

## SPRINT 4

<b>Date</b>	17 November 2022
<b>Team ID</b>	PNT2022TMID02650
<b>Project Name</b>	SMARTFARMER – IoT ENABLED SMARTFARMING APPLICATION

### Python Script:

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

organization = "1yc3ld"
deviceType = "1212"
deviceId = "1234567"
authMethod = "token"
authToken = "RypUYMBPbR0ndbf3f7"

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])
    status=cmd.data['command']
    if status=="Motor":
        print ("Motor is on")
    else :
        print ("Motor is off")

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()
```

while True:

```
temp=random.randint(0,100)
Humid=random.randint(0,100)
```

```
data = { 'temp' : temp, 'Humid': Humid }
def myOnPublishCallback():
```

```
    print ("Published Temperature = %s C" % temp, "Humidity = %s %" % Humid, "to
IBM Watson")
```

```
    success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
```

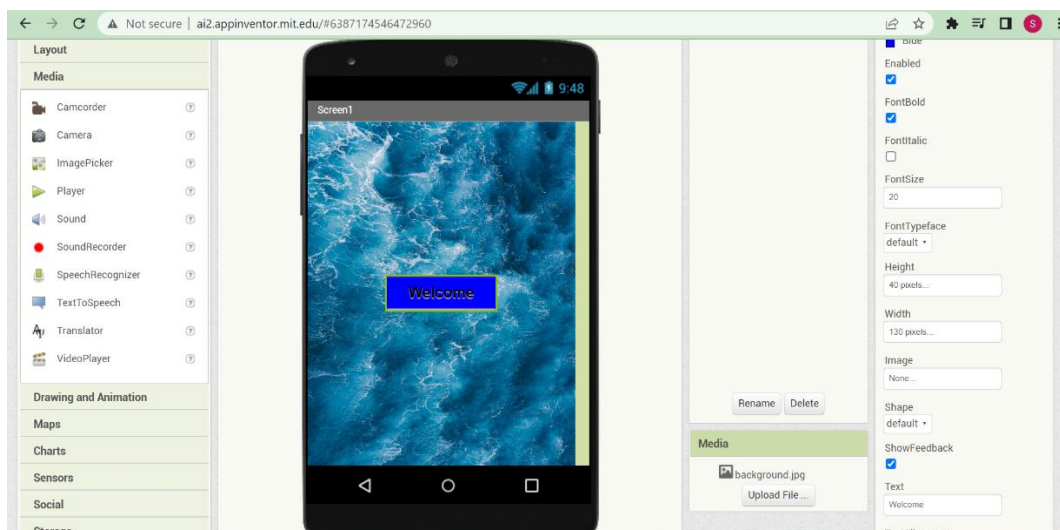
```
    if not success:
```

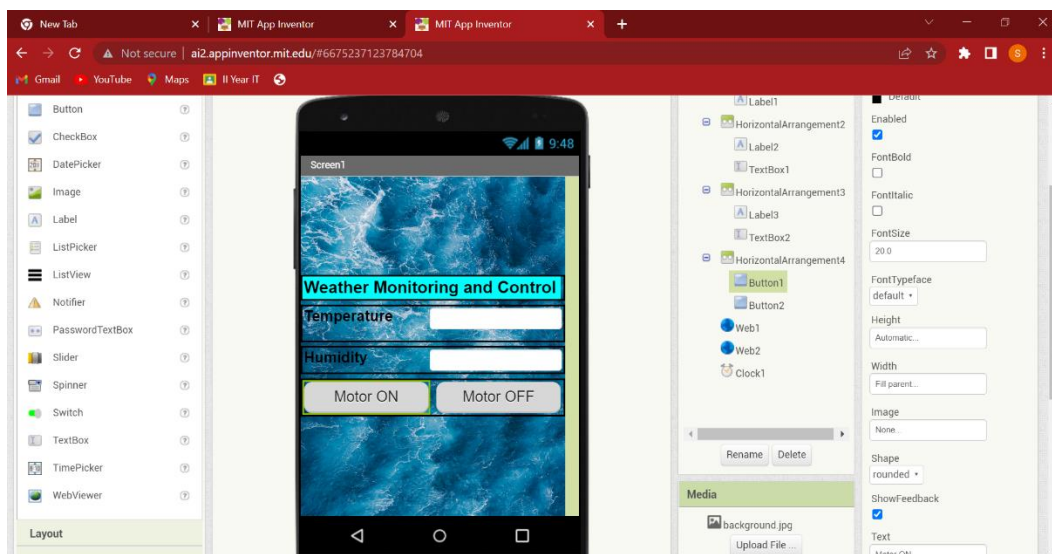
```
        print("Not connected to IoT")
        time.sleep(1)
```

```
deviceCli.commandCallback = myCommandCallback
```

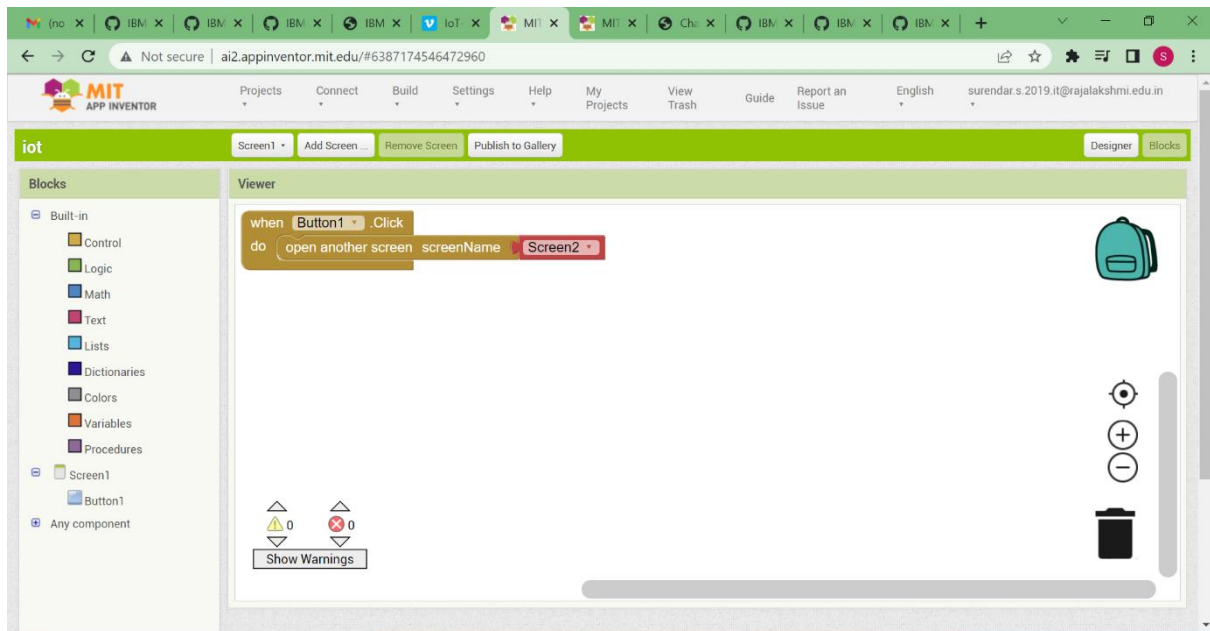
```
deviceCli.disconnect()
```

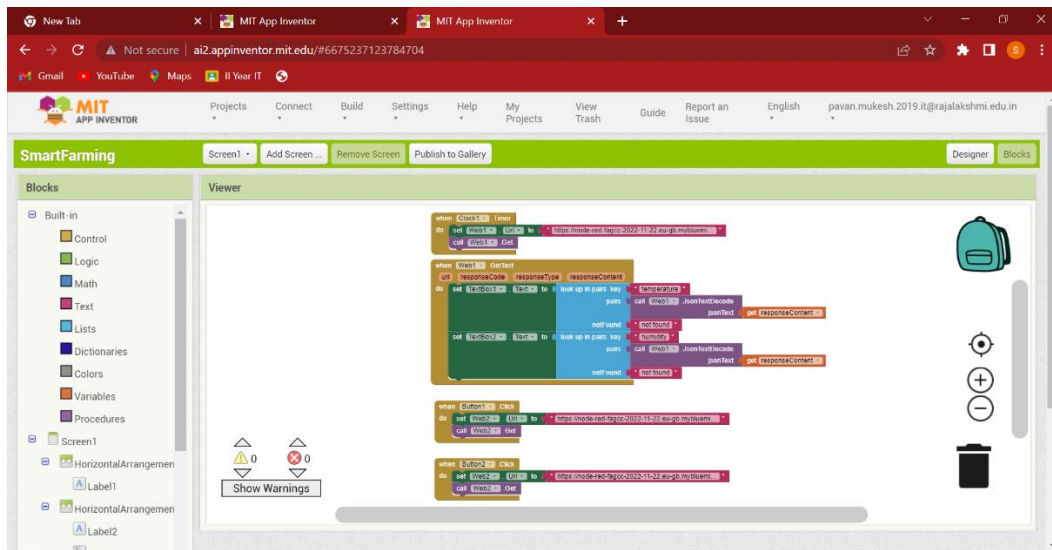
## MIT App Creation:-



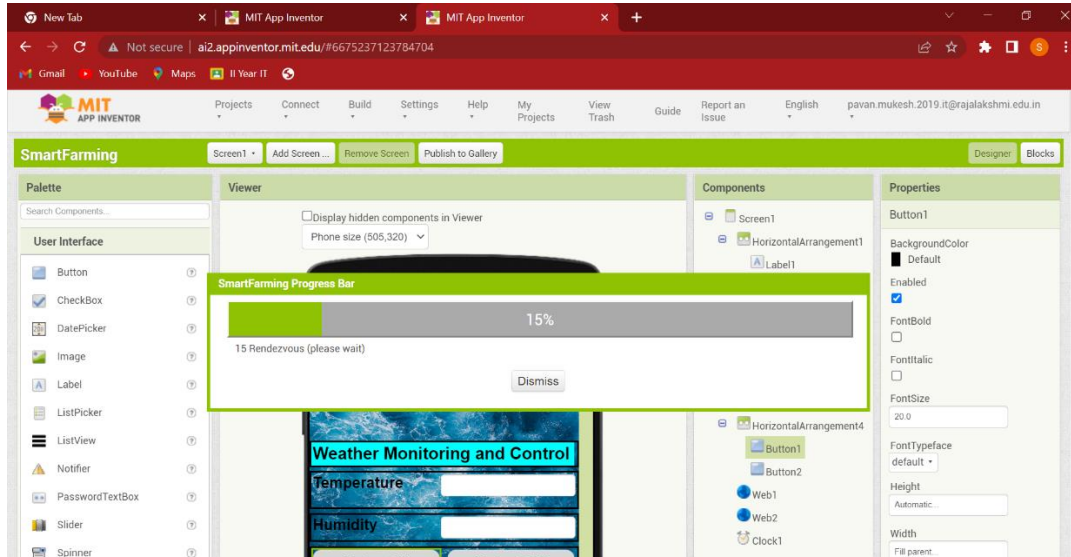


## Blocks:-





## MIT app connection



## SCRIPT WILL BE RECEIVED BY IBM WATSON IOT PLATFORM:-

The image displays a terminal window on the left and the IBM Watson IoT Platform dashboard on the right.

**Terminal Window:**

```
File Edit Shell Debug Console Window Help
Python 3.9.5 (tags/v3.9.5:00f0cf1, Nov 5 2021, 20:49:33) [MSC
v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more in
>>>
-----
REMARK: C:\Users\swagun\OneDrive\Desktop\try1.
2022-11-17 15:33:43.811 10m101f device:Client INFO C
connected successfully. domain:dominators-12345
Published Temperature = 22 C Humidity = 0 % to IBM Watson
Published Temperature = 25 C Humidity = 77 % to IBM Watson
Published Temperature = 13 C Humidity = 10 % to IBM Watson
Published Temperature = 39 C Humidity = 34 % to IBM Watson
Published Temperature = 22 C Humidity = 43 % to IBM Watson
Published Temperature = 1 C Humidity = 63 % to IBM Watson
```

**IBM Watson IoT Platform Dashboard:**

The dashboard shows a device named "12345" with a status of "Connected". The device is associated with the domain "dominators". The dashboard displays a table of recent events:

Event	Value	Format	Last Received
IoT Sensor	["temperature":1,"humidity":63,"soil_moisture":...	json	a few seconds ago
IoT Sensor	["temperature":22,"humidity":43,"soil_moisture":...	json	a few seconds ago
IoT Sensor	["temperature":39,"humidity":34,"soil_moisture":...	json	a few seconds ago

At the bottom of the dashboard, it indicates "0 Simulations running".