

SPRINT - 4

DATE	18 NOVEMBER 2022
TEAM ID	PNT2022TMID38157
PROJECT NAME	Smart Farmer - IoT Enabled smartFarming Application

TEAM MEMBERS :

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PYTHON SCRIPT :

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random
organization = "zxnybt"
deviceType = "dominators"
deviceId = "12345"
authMethod = "token"
authToken = "123456789"
def myCommandCallback(cmd):
print("Command received: %s" % cmd.data)
for key in cmd.data.keys():
if key == 'motor':
if cmd.data['motor'] == 'ON':
print("MOTOR is turned ON")
try:
elif cmd.data['motor'] == 'OFF':
print("MOTOR is turned OFF")
deviceOptions = {"org": organization, "type": deviceType, "id":
deviceId, "auth-method": authMethod, "auth-token": authToken}
```

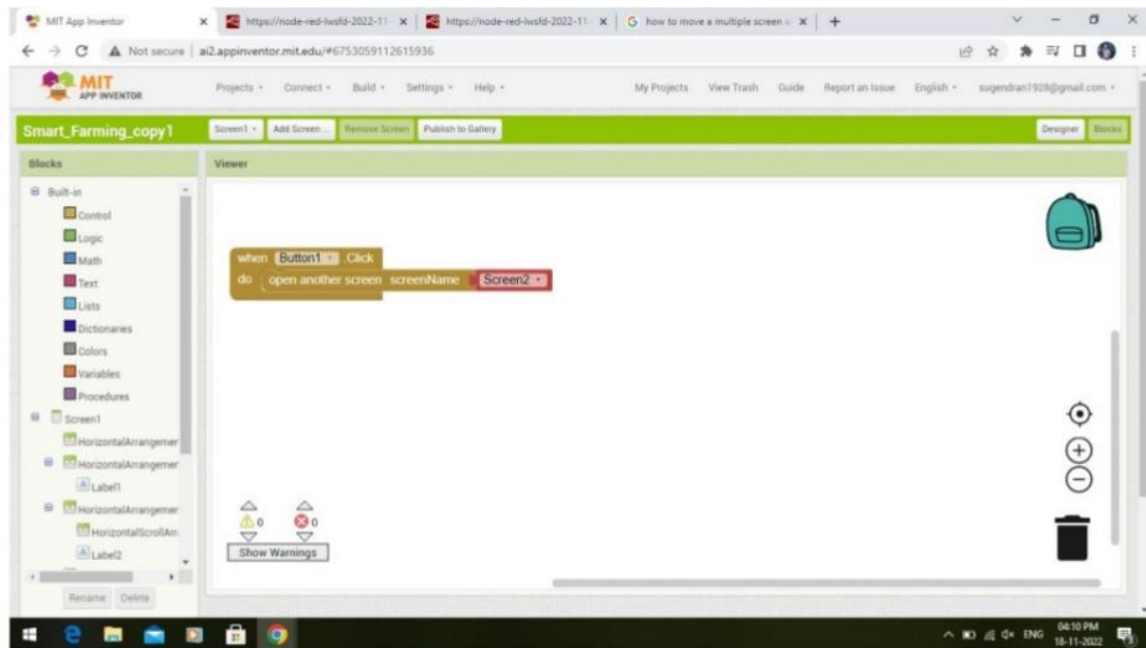
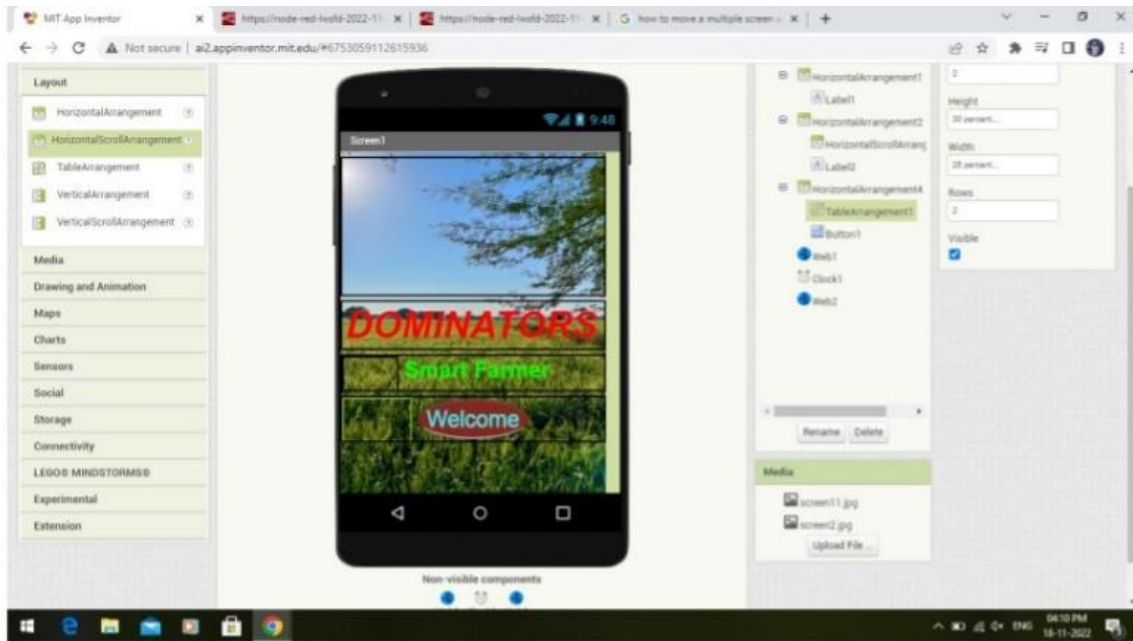
```

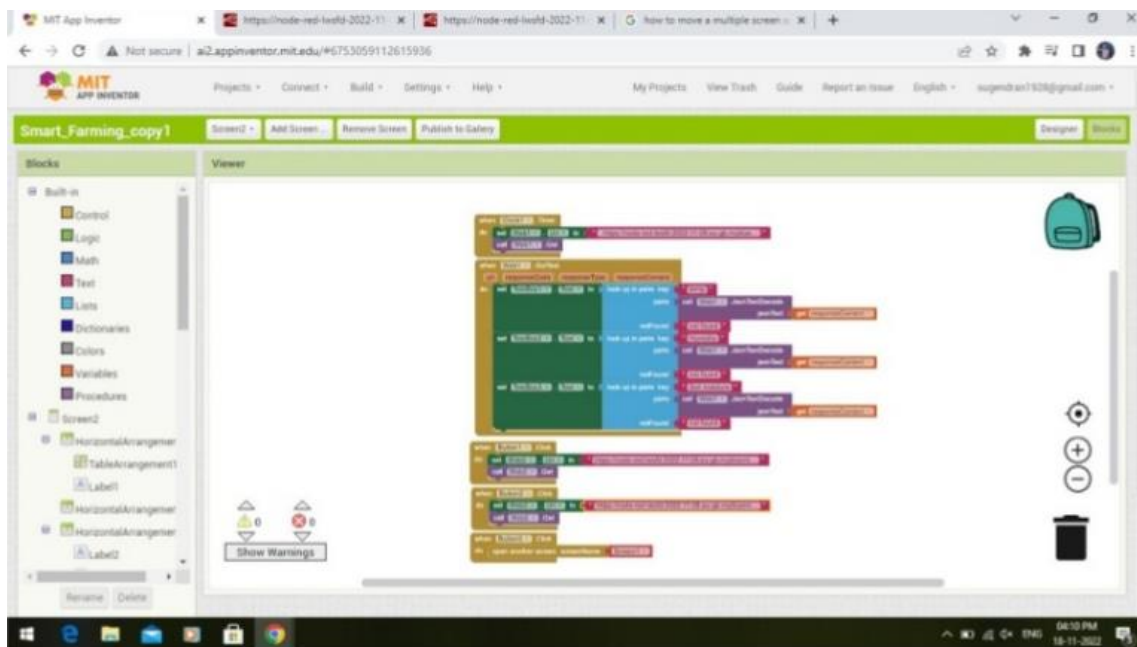
deviceCli = ibmiotf.device.Client(deviceOptions)
except Exception as e:
print("Caught exception connecting device: %s" % str(e))
sys.exit()
deviceCli.connect()
while True:
temp=random.randint(0,40)
Humid=random.randint(0,100)
moist=random.randint(0,40)
data = { 'temperature' : temp, 'humidity': Humid, 'soil_moisture':moist
}
def myOnPublishCallback():
print ("Published Temperature = %s C" % temp, "Humidity = %s
%%" % Humid, "soil moisture =%s" % moist,"to IBM Watson")
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)
if not success:
print("Not connected to IoTf")
time.sleep(10)
deviceCli.commandCallback = myCommandCallback

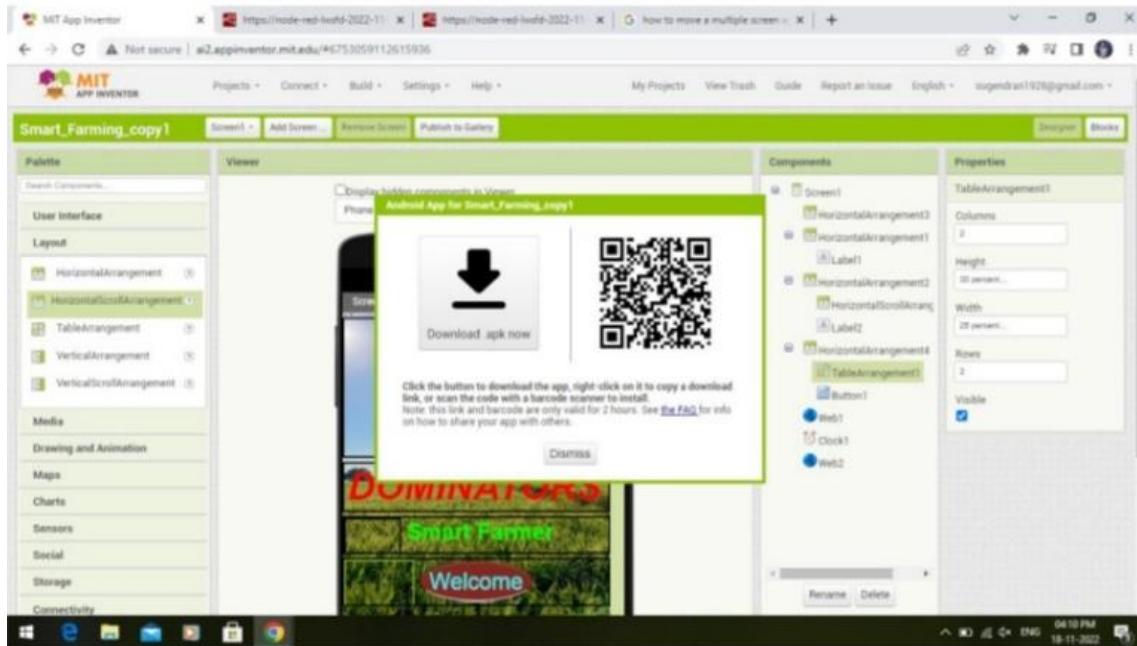
deviceCli.disconnect()

```

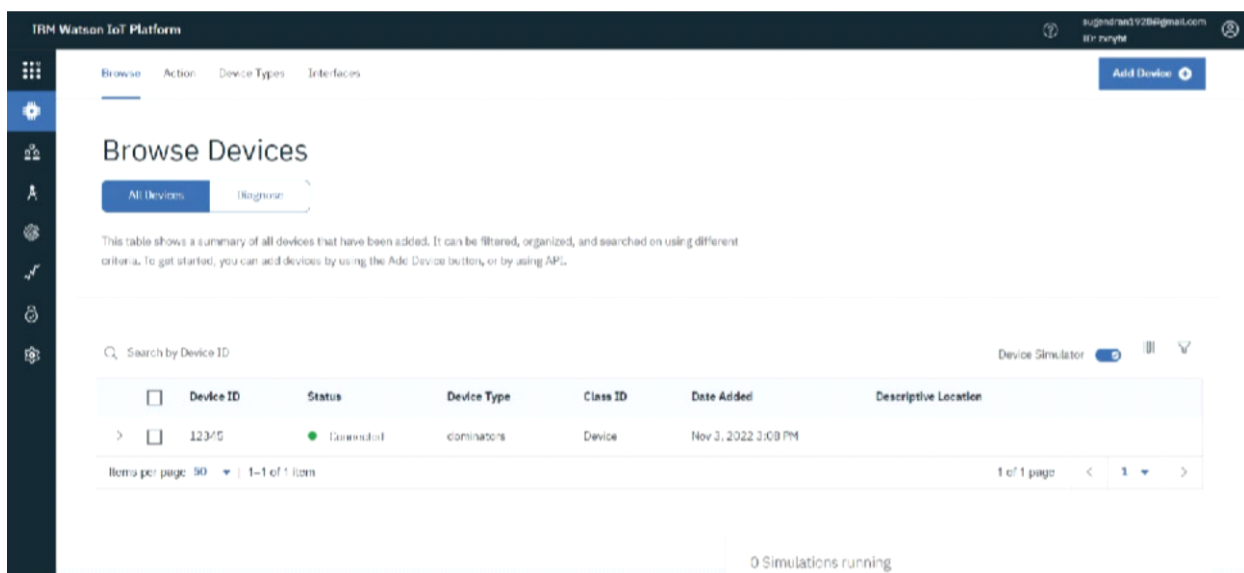
USER APPLICATION OR MOBILE APPLICATION :







PYTHON SCRIPT CONFIGURED TO IBM WATSON IoT PLATFORM :



THE SENSOR DATAS IN THE PYTHON SCRIPT WILL BE RECEIVED BY IBM WATSON IOT PLATFORM :

```
Python 3.9.5 (tags/v3.9.5:3030101, Nov 5 2021, 20:48:33) [MSC
v.1909 44 bit (AMD64)] on win32
Type "help()", "copyright()", "credits()" or "license()" for more in
formation.
>>>
----- RESPONSE: C:\Users\sugen\OneDrive\Desktop\try1.
lv
2022-11-17 19:33:49,811 IBMWatIoT.DeviceClient INFO C
connected successfully: domainid:dominators:12345
Published Temperature = 22 C Humidity = 0 % to IBM Watson
Published Temperature = 23 C Humidity = 77 % to IBM Watson
Published Temperature = 13 C Humidity = 10 % to IBM Watson
Published Temperature = 39 C Humidity = 36 % 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

12345 Connected dominators Device Nov 3, 2022 3:08 PM

Identity Device Information Recent Events State Logs

The recent events listed show the live stream of data that is coming and going from this device.

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

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