SPRINT 4

Date	18 November 2022
Team ID	PNT2022TMID38164
Project Name	Project – Smart Farmer-IoT Enabled smart Farming Application

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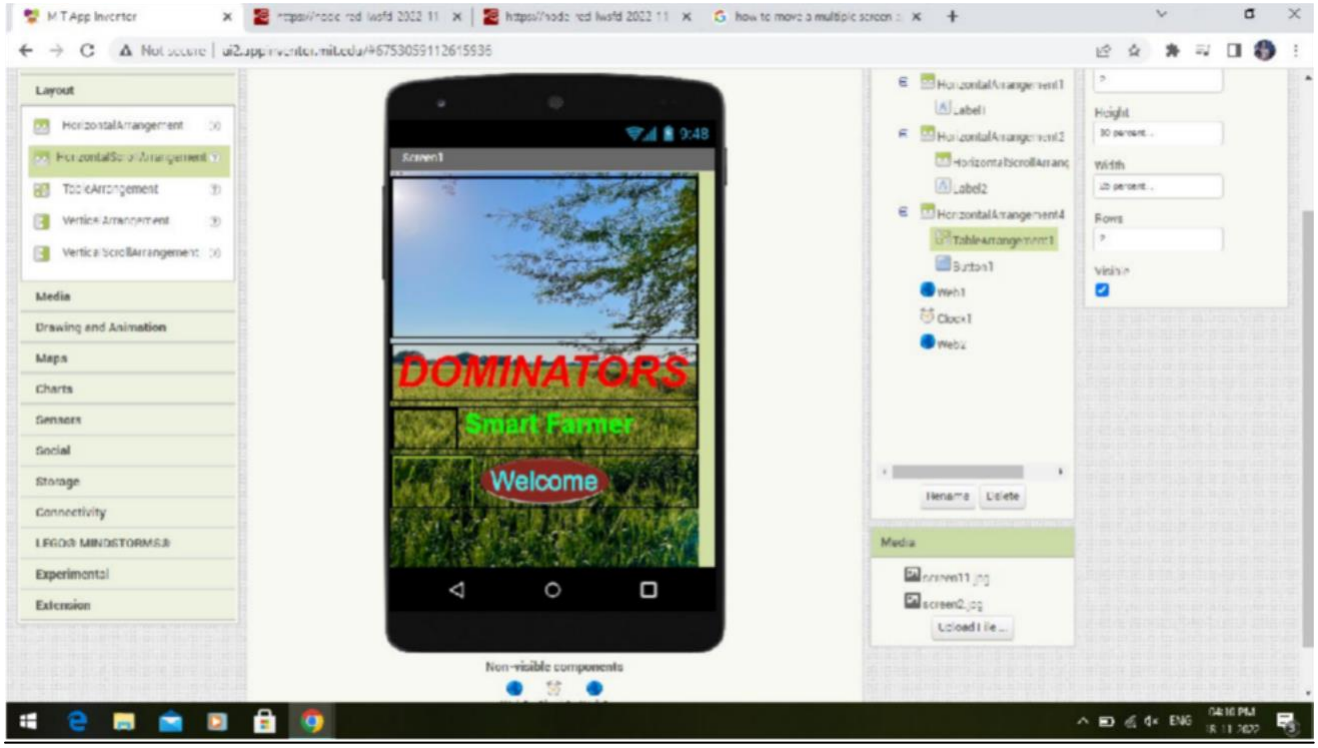
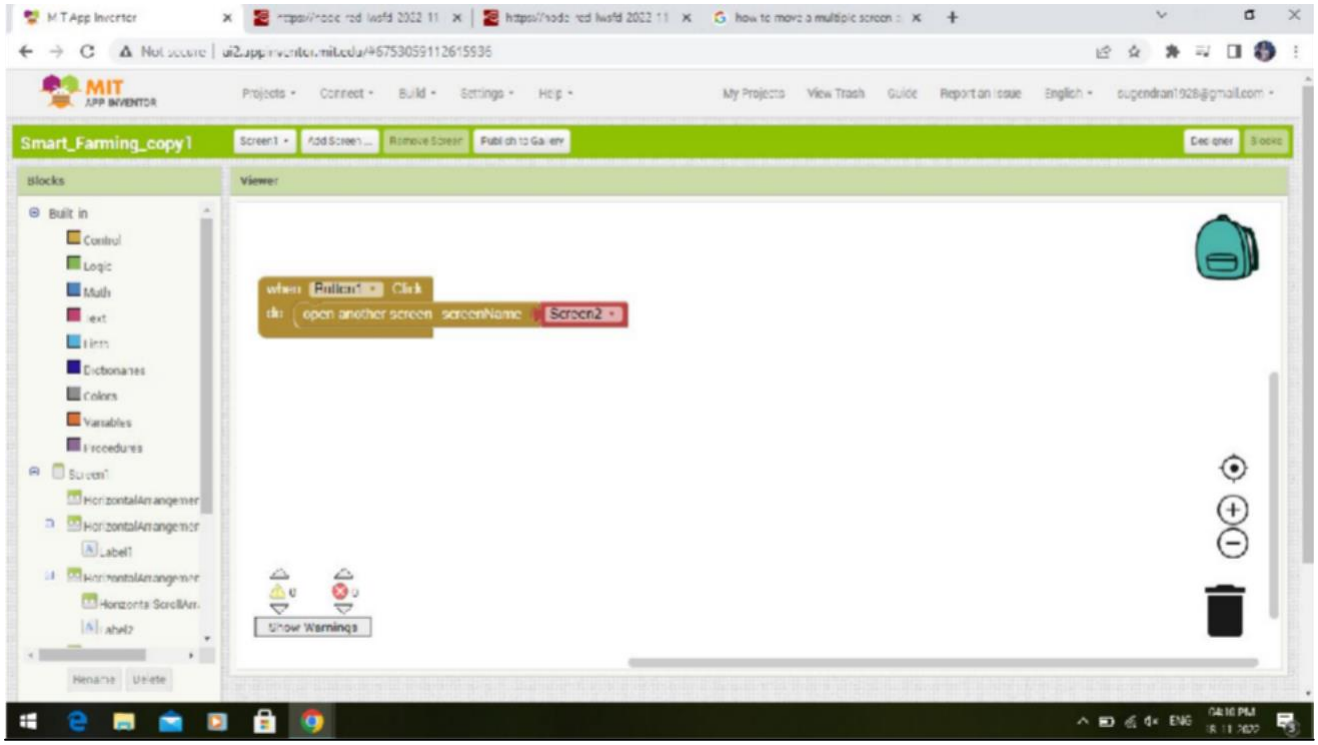
PYTHON SCRIPT :-

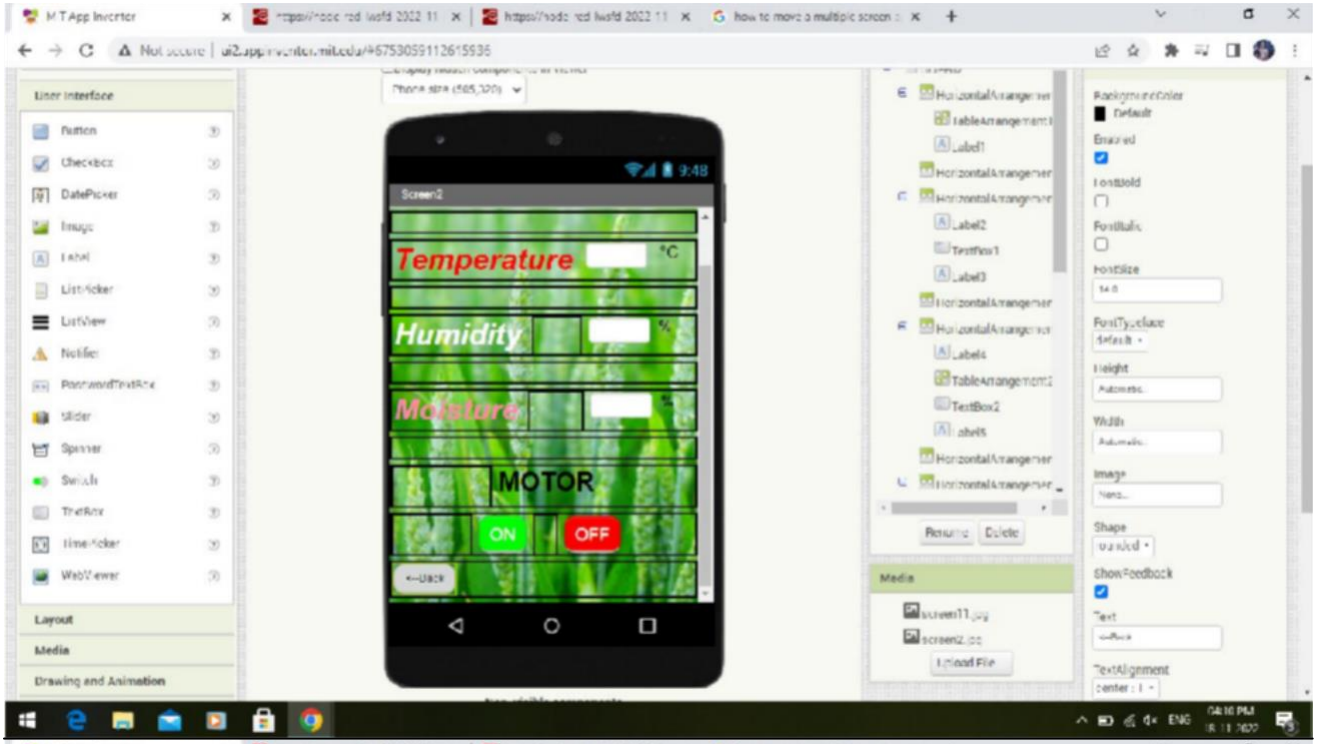
```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random


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")

         elif cmd.data['motor'] == 'OFF':
            print("MOTOR is turned 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(0,40)
      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:-



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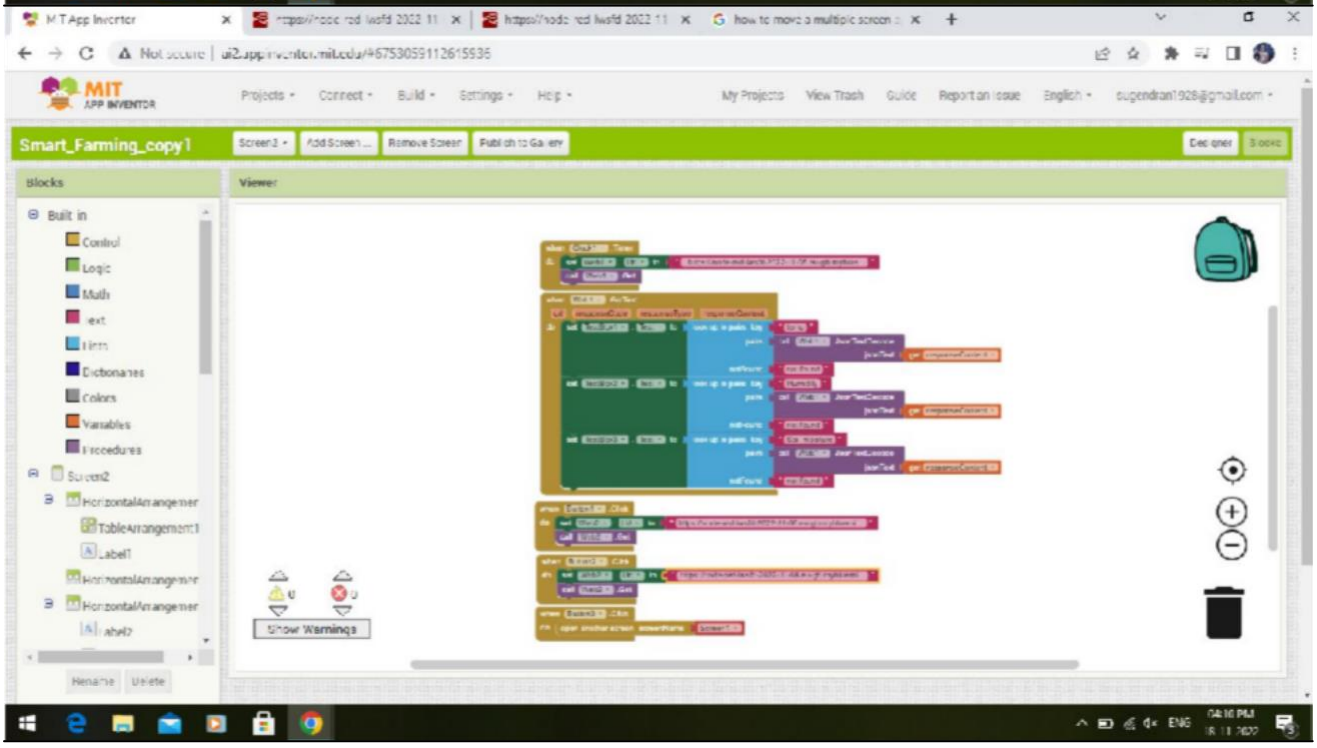
User Interface
Button
Checkbox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Drawing and Animation
Screen2
9:48
Temperature
°C
Humidity
%
Moisture
%
MOTOR
ON
OFF
<--back
Media
Screen1.png
screen2.jpg
Upload File
Rename
Delete
Shape
Text
TextAlignment
center : 1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Projects
Connect
Build
Settings
Help
My Projects
View Trash
Guide
Report an Issue
English
Smart_Farming_copy1
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Viewer
Built In
Control
Logic
Math
Text
Lists
Dictionaries
Colors
Variables
Procedures
Screen2
HorizontalArrangement
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Label1
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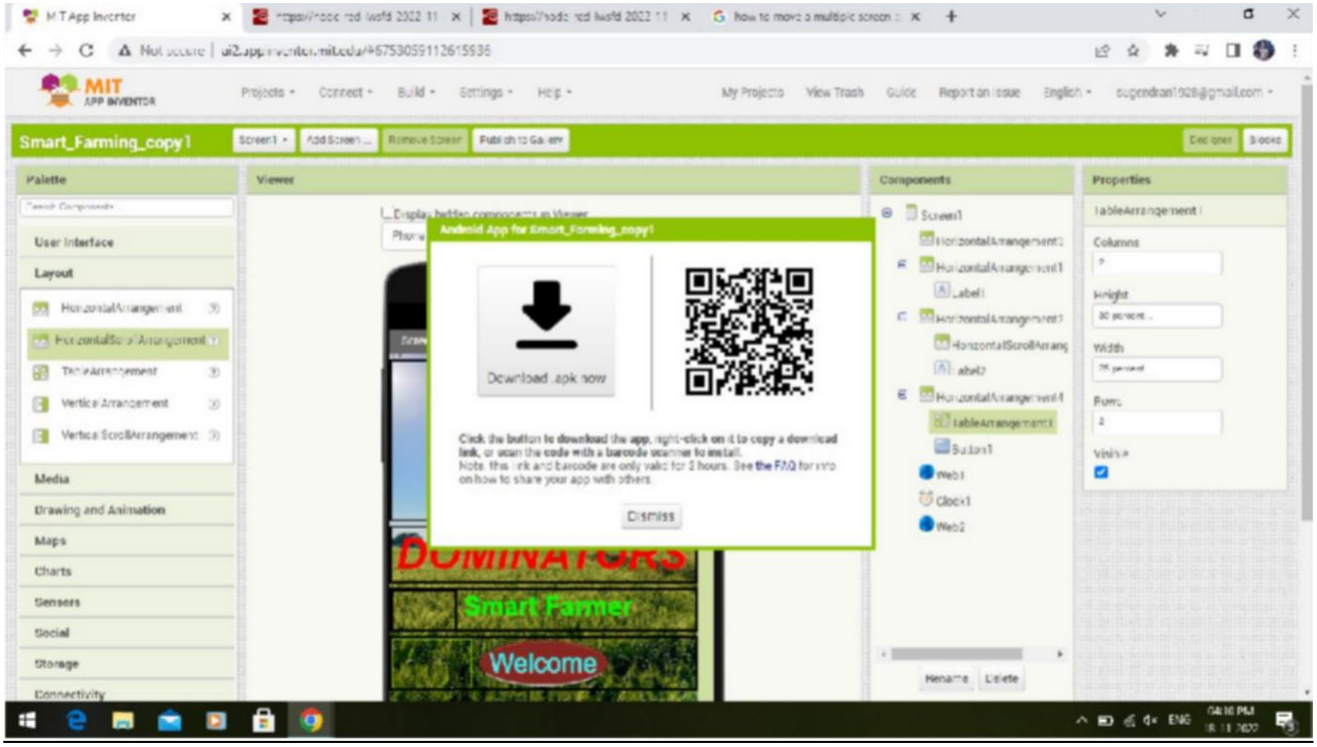
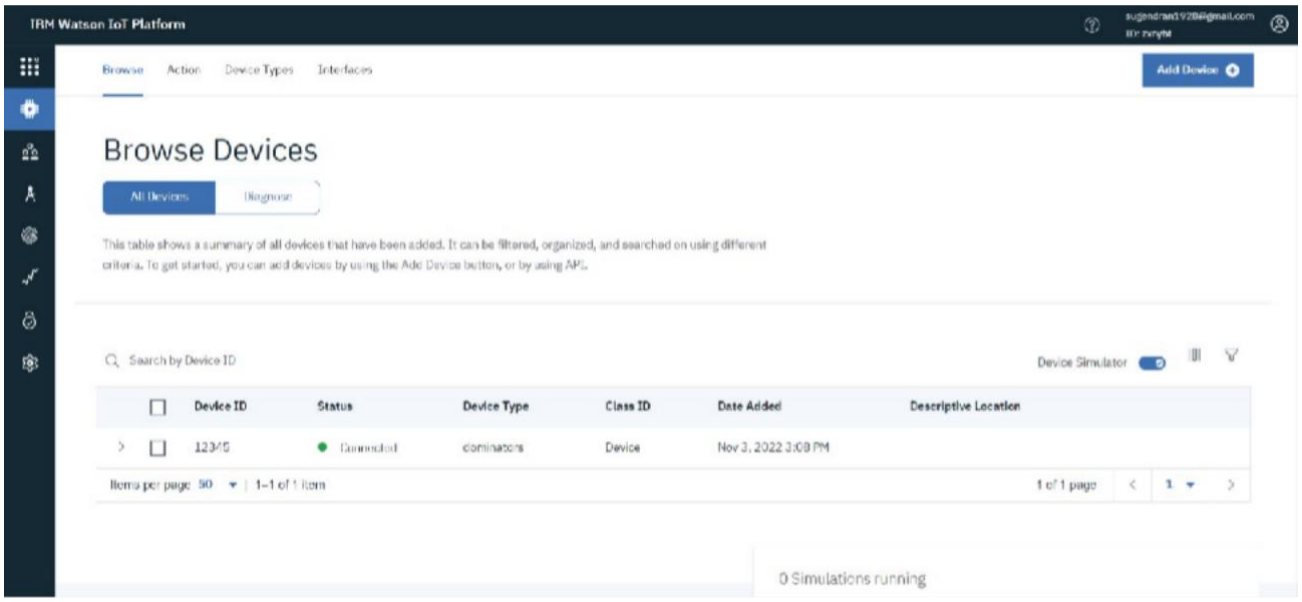
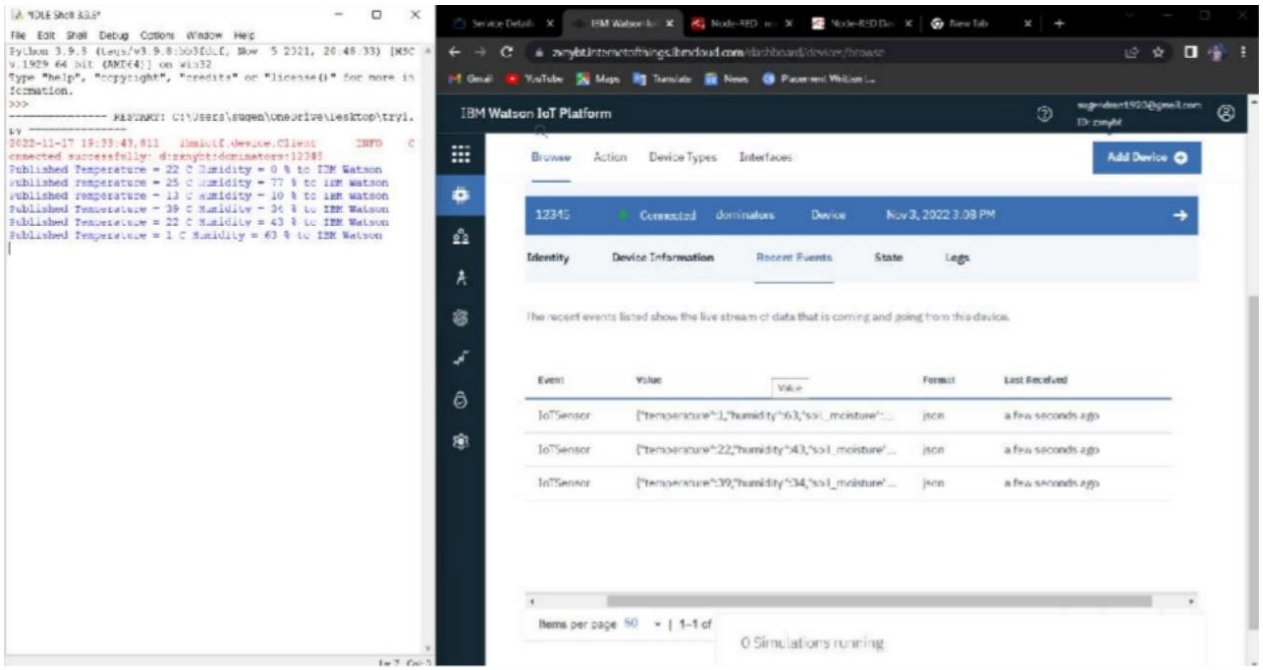
HorizontalArrangement
Label2
Show Warnings
Rename
Delete



PYTHON SCRIPT CONFIGURED TO IBM WATSON IoT PLATFORM :-



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


IDLE Shell 3.9.9
File Edit Shell Debug Options Window Help
Python 3.9.9 (tags/v3.9.9:ccb0e6a, Nov 15 2021, 18:08:50) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
---------- RESTART: C:\Users\sugen\OneDrive\Desktop\try1.py ----------
2022-11-17 19:33:43,811 ibmiotf.device.Client INFO C
onnected successfully: d:rzxybt: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
rzxybtinternetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
Browse
Action
Device Types
Interfaces
Add Device
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
IoTSensor
json
a few seconds ago
IoTSensor
json
a few seconds ago
IoTSensor
json
a few seconds ago
Items per page 50
1–1 of
0 Simulations running