

PARAMATHMUNI V N S SAI SARAN

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Assignment-4:

Develop a mobile application that takes the user input and sends it to IoT device (python code).print the received data in python shell.

Keep a text box to accept the user input integrate a submit button. Whenever user enters the text input in text box and clicks the button the data should be sent to IBM cloud using URL(HTTP API).

Software: IDLE , MIT & NODE RED APPS

Code:

```
ibmiot.py - C:\Users\DELL\AppData\Local\Programs\Python\Python39\ibmiot.py (3.9.6)
File Edit Format Run Options Window Help

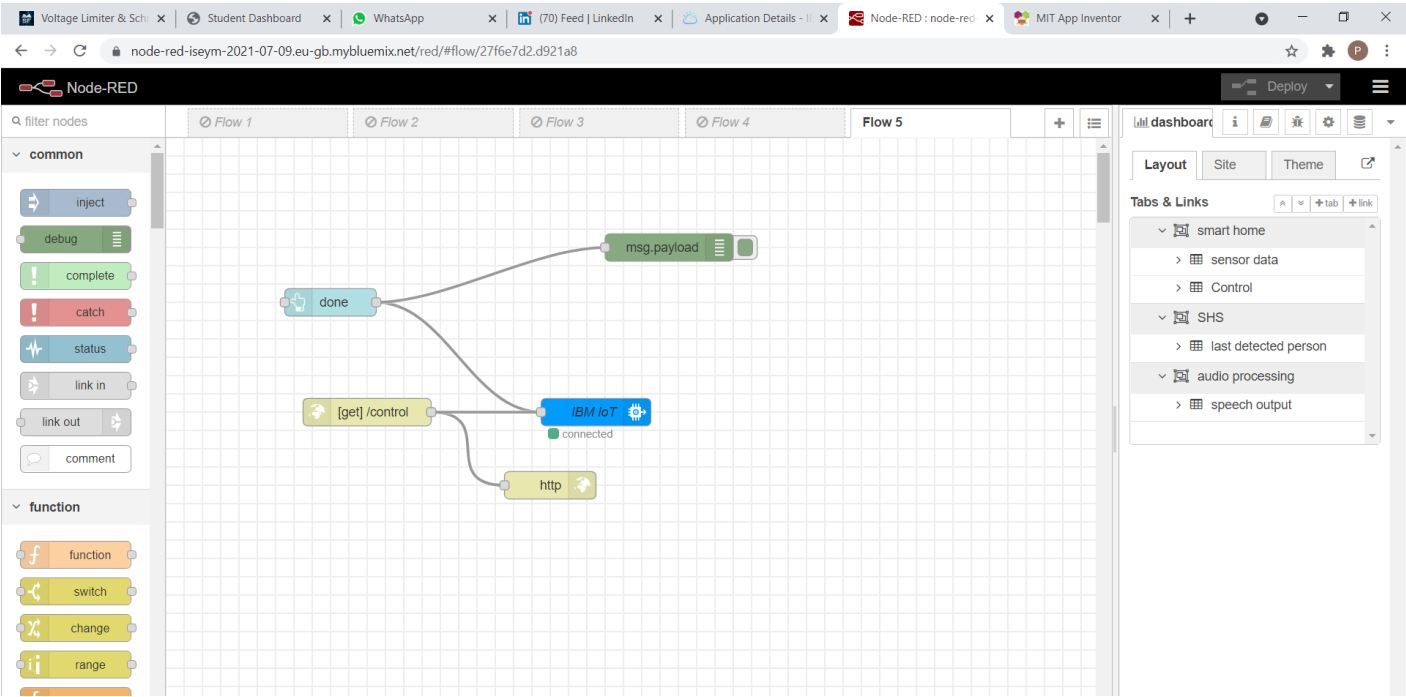
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "kjl4w7",
        "typeId": "VITElectrical",
        "deviceId": "89510"
    },
    "auth": {
        "token": "128951045"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
    print(m)
    if m == "lighton":
        print("Light is on")
    elif m == "lightoff":
        print("Light is off")
    print()

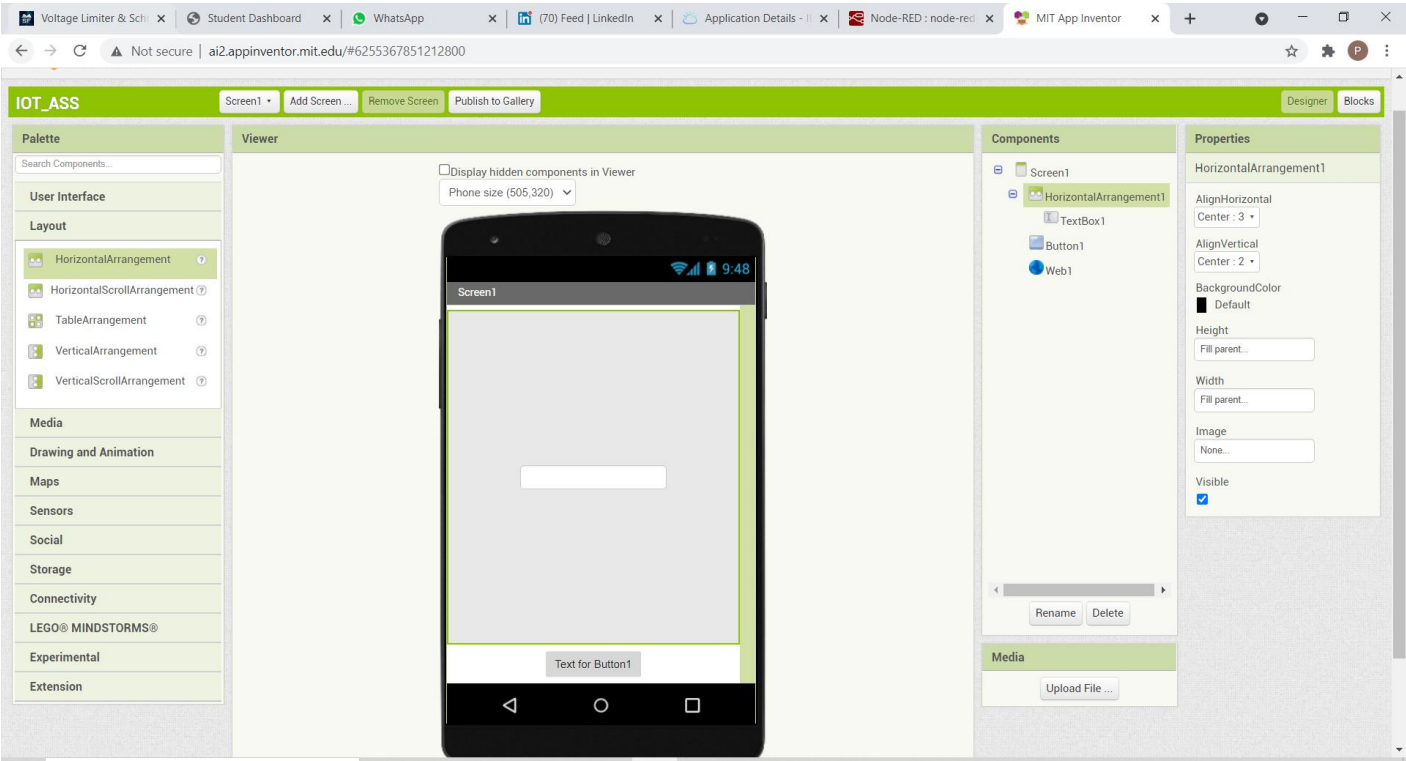
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    temp=random.randint(-20,125)
    hum=random.randint(0,100)
    myData={'temperature':temp, 'humidity':hum}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

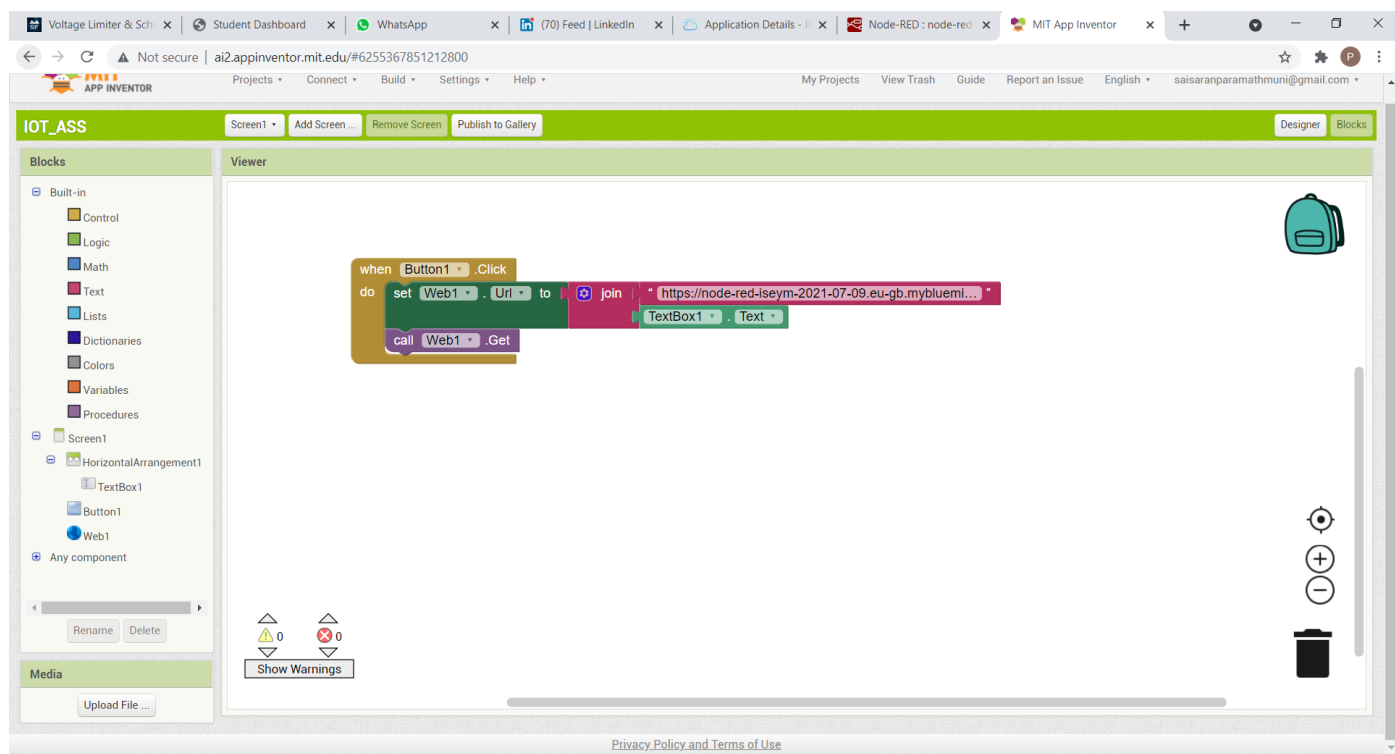
Node red:



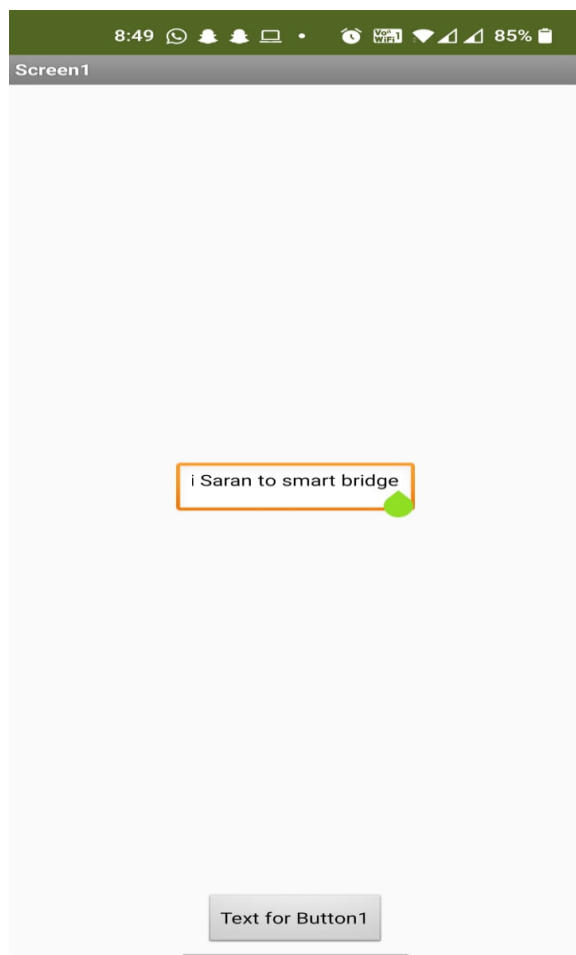
MIT APP:



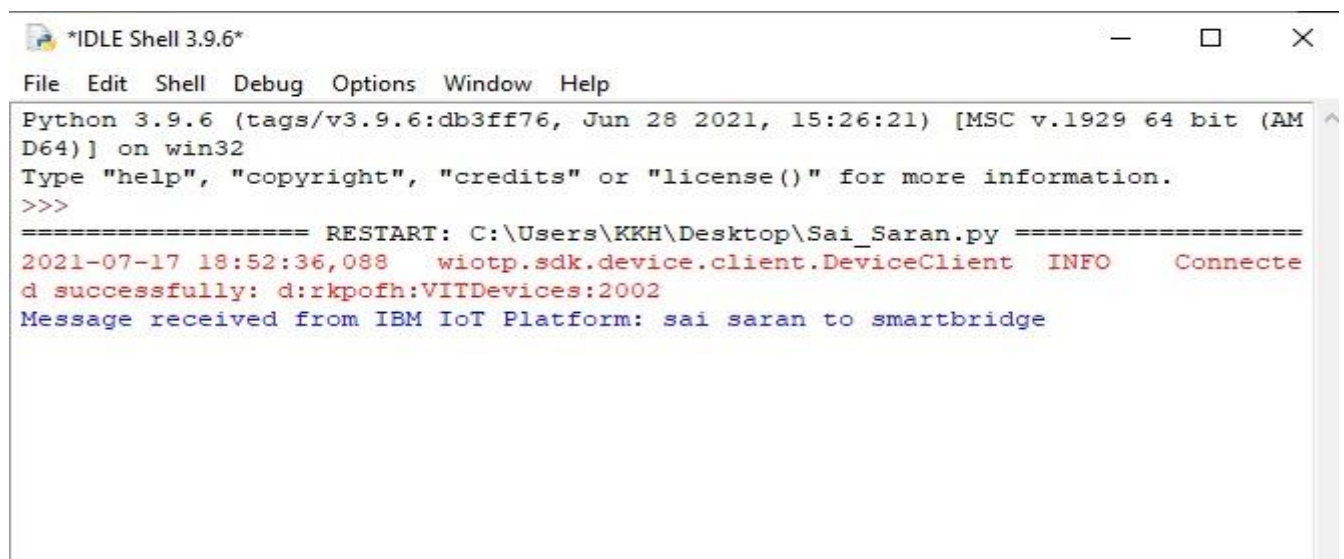
Blocks:



After building the blocks we have to connect the web application to phone



We can view it in the python shell



The screenshot shows a window titled '*IDLE Shell 3.9.6*' with a standard menu bar (File, Edit, Shell, Debug, Options, Window, Help). The main text area displays the following output:

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\KKH\Desktop\Sai_Saran.py =====
2021-07-17 18:52:36,088 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:rkpofh:VITDevices:2002
Message received from IBM IoT Platform: sai saran to smartbridge
```