Assignment-4 18481A0460

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).

Code:

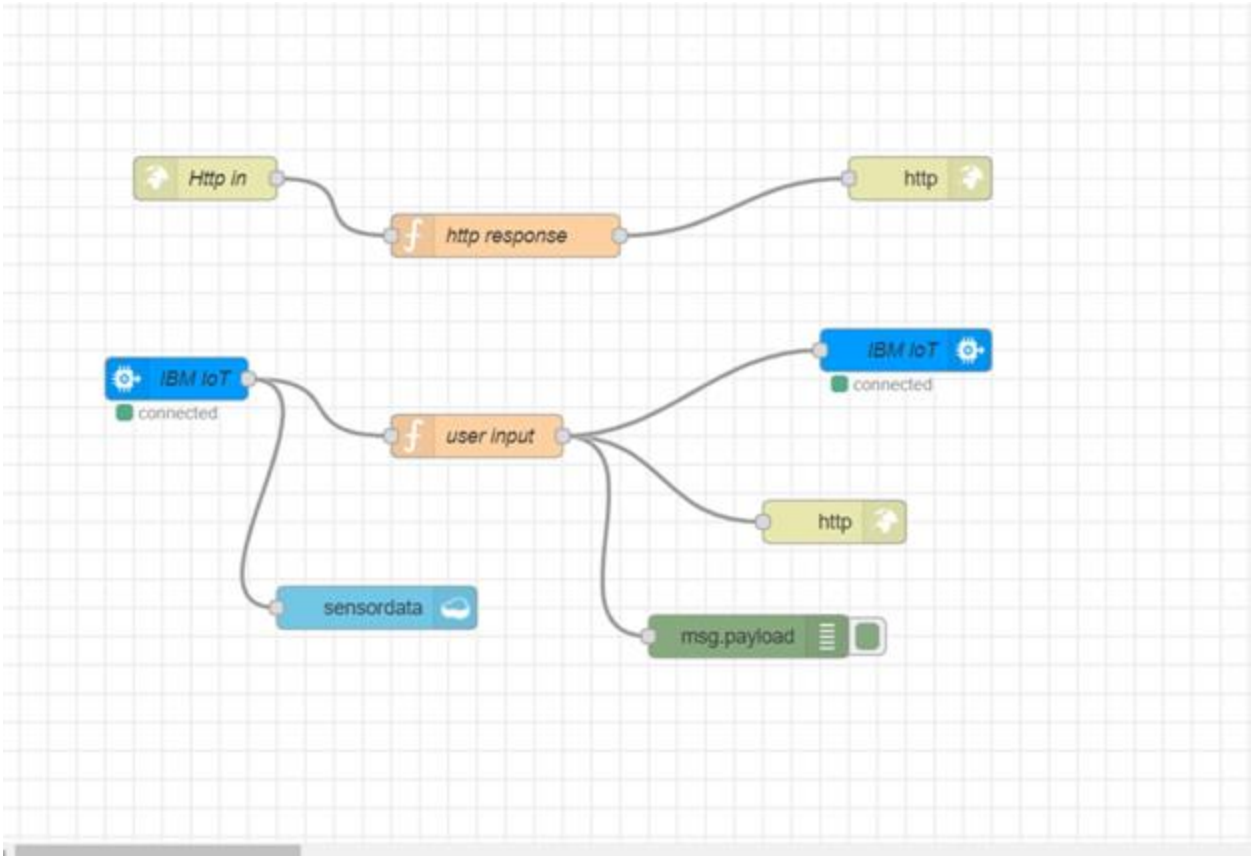
```
import ibmiotf.application

import ibmiotf.device

import random

import json

import time


#Provide your IBM Watson Device Credentials

organization = "frtx4v"

deviceType = "iotdevice"

deviceId = "1001"

authMethod = "token"

authToken = "1234567890"
```

```
# Initialize the device client.
T=0
H=0

def myCommandCallback(cmd):
    print("Command received: %s" % cmd.data['command'])



    if cmd.data['command']=='lighton':
        print("LIGHT ON IS RECEIVED")



    elif cmd.data['command']=='lightoff':
        print("LIGHT OFF IS RECEIVED")



    if cmd.command == "setInterval":
        if 'interval' not in cmd.data:
            print("Error - command is missing required information: 'interval'")
        else:
            interval = cmd.data['interval']
    elif cmd.command == "print":
        if 'message' not in cmd.data:
            print("Error - command is missing required information: 'message'")
        else:
            print(cmd.data['message'])
```

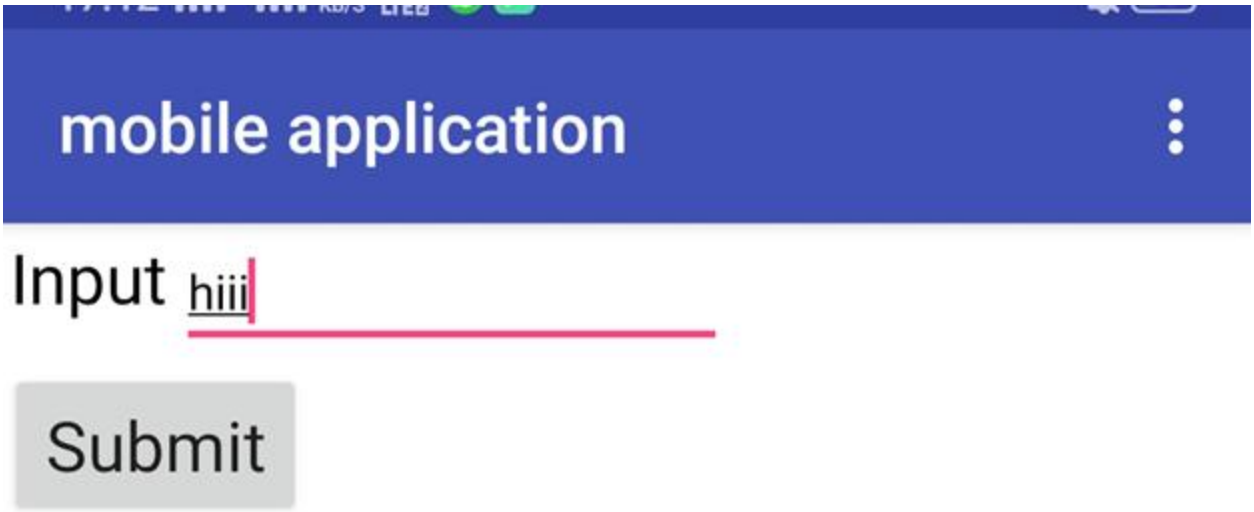
```
try:
 deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method": authMethod, "auth-token": authToken}
 deviceCli = ibmiotf.device.Client(deviceOptions)
#.....


except Exception as e:
 print("Caught exception connecting device: %s" % str(e))
 sys.exit()


# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type "greeting" 10 times
deviceCli.connect()


while True:
        T=23
        H=45
        #Send Temperature & Humidity to IBM Watson
        data = {"d":{ 'temperature' : T, 'humidity': H }}
        #print (data)
        def myOnPublishCallback():
            print ("Published Temperature = %s C" % T, "Humidity = %s %%" % H, "to IBM Watson")
       success = deviceCli.publishEvent("Data", "json", data, qos=0, on_publish=myOnPublishCallback)
```

```
  if not success:
        print("Not connected to IoTF")
    time.sleep(1)

    deviceCli.commandCallback = myCommandCallback

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```

Node Red :



Mit App Inventor:


mobile application
Input hiii
Submit