

ASSIGNMENT-4

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18BLC1106

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).

Creating a Layout for App:

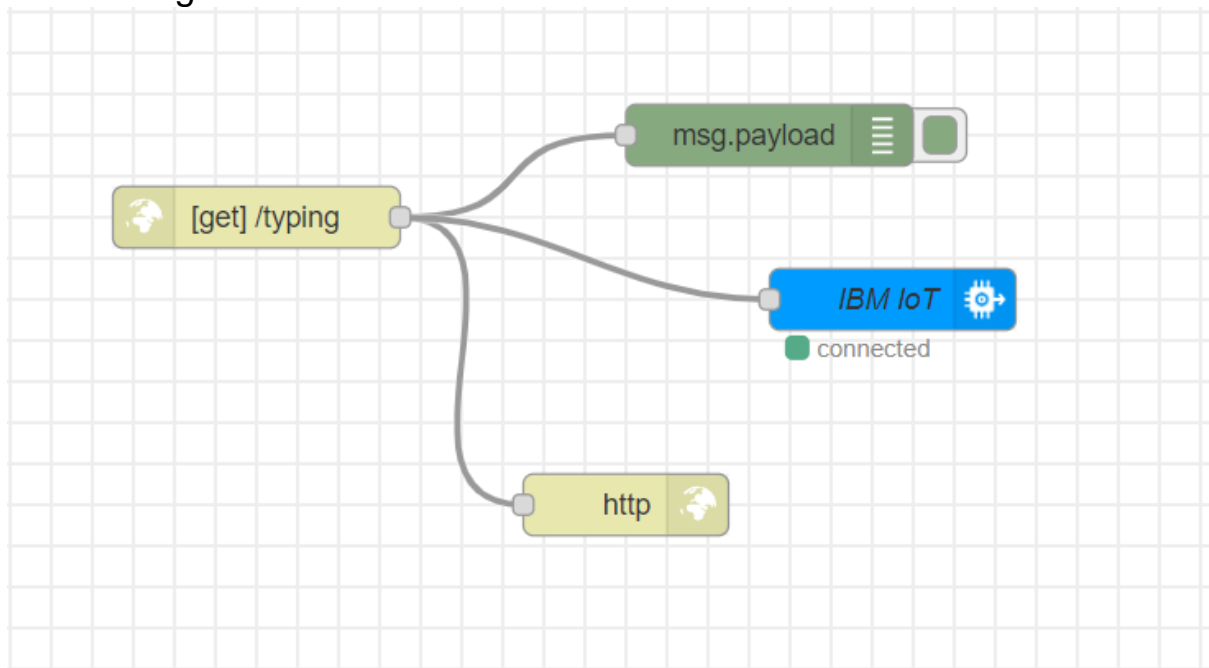
The screenshot displays the MIT App Inventor web interface. The top navigation bar includes links for Projects, Connect, Build, Settings, and Help. The main workspace is divided into several panels:

- Palette:** Contains categories like User Interface, Layout, Media, Drawing and Animation, Maps, Sensors, Social, Storage, Connectivity, and Extensions. The 'Layout' section is expanded, showing various arrangement options.
- Viewer:** Shows a mobile phone mockup with a screen titled 'Hello, Welcome'. It contains a text box and a 'Submit' button. A 'Web1' component is visible at the bottom, labeled as 'Non-visible components'.
- Components:** Lists the components on the screen, including 'Screen1', 'HorizontalArrangement2', 'Label1', 'HorizontalArrangement1', 'TextBox1', 'Button1', and 'Web1'.
- Properties:** Shows the properties for the selected 'HorizontalArrangement2' component, such as alignment, background color, height, width, image, and visibility.

Below the workspace, the 'Viewer' section shows the logic for the app:

```
when Button1.Click
do
  set Web1.Url to join ( "https://node-red-cwmvi-2021-07-08.eu-gb.mybluemix..."
  TextBox1.Text
  call Web1.Get
  set TextBox1.Text to ""
```

Connecting to node red:



Python Code:

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "pifrwg",
        "typeId": "Extern_Assignment",
        "deviceId": "1106"
    },
    "auth": {
        "token": "18BLC1106_Externship_Assignment"
    }
}

def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])

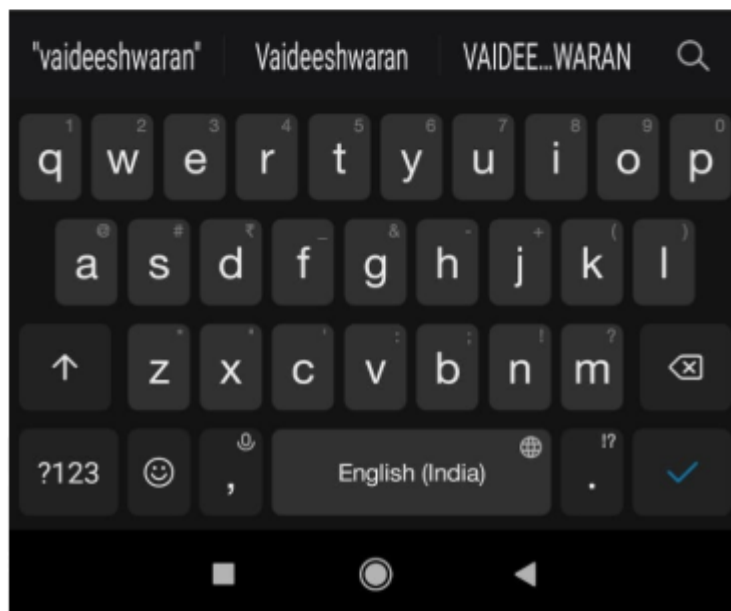
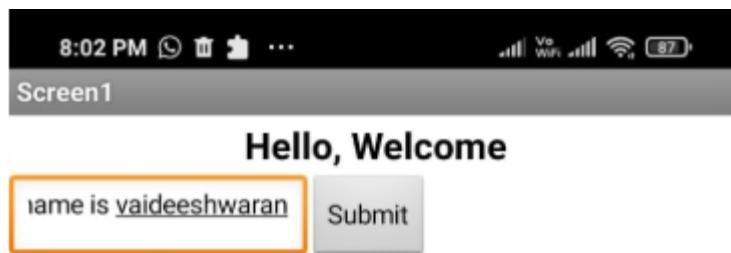
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    client.commandCallback = myCommandCallback
    time.sleep(2)
    client.disconnect()
```

```
*IDLE Shell 3.9.5*
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdb, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python39\code\Assignment_4.py =====
2021-07-16 20:00:23,861 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:pifrwg:Extern_Assignment:1106
|
```

OUTPUT:

```
*IDLE Shell 3.9.5*
File Edit Shell Debug Options Window Help
Python 3.9.5 (tags/v3.9.5:0a7dcdb, May 3 2021, 17:27:52) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python39\code\Assignment_4.py =====
2021-07-16 20:00:23,861 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:pifrwg:Extern_Assignment:1106
Message received from IBM IoT Platform: hello how are you
Message received from IBM IoT Platform: my name is vaideeshwaran
|
```



APP LINK:

<http://ai2.appinventor.mit.edu/b/gdxe>