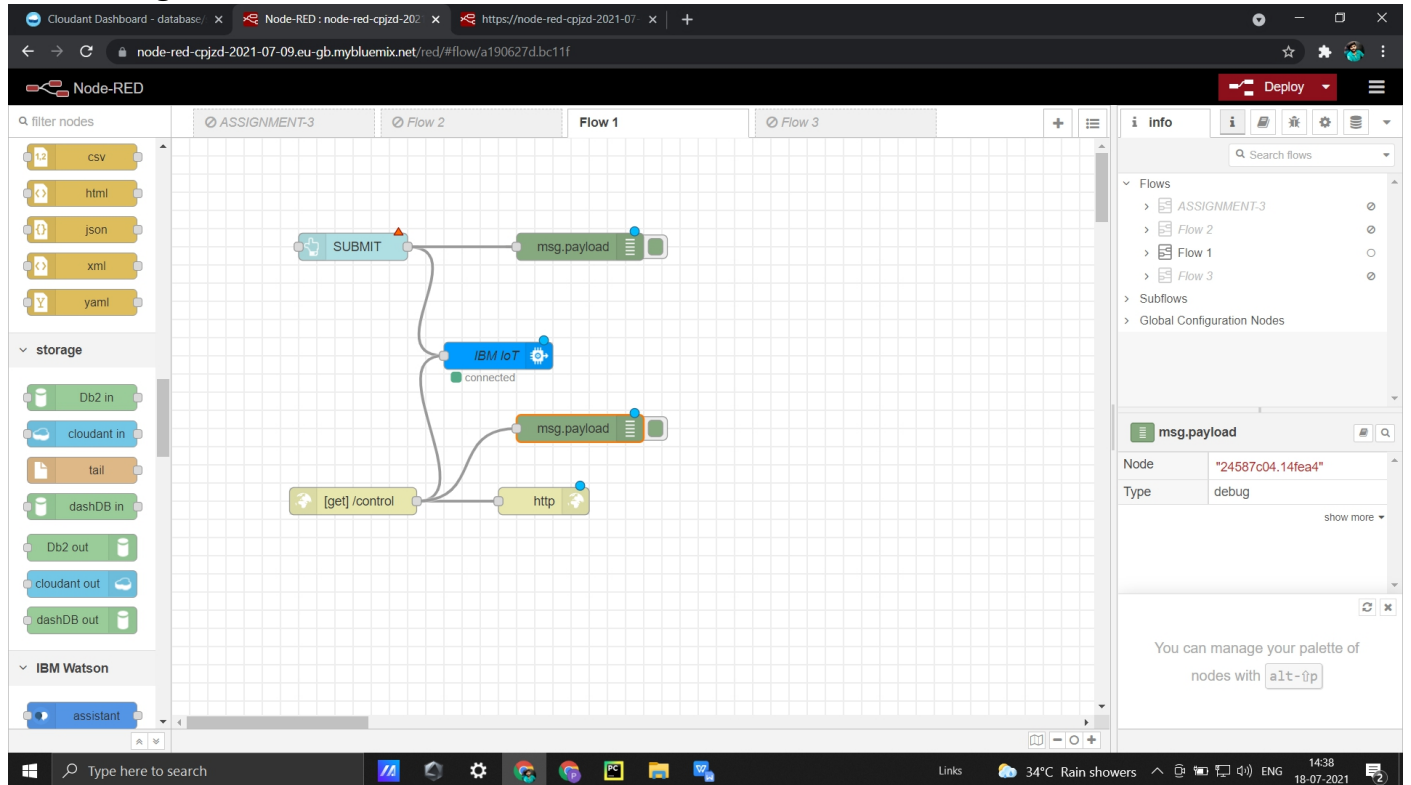
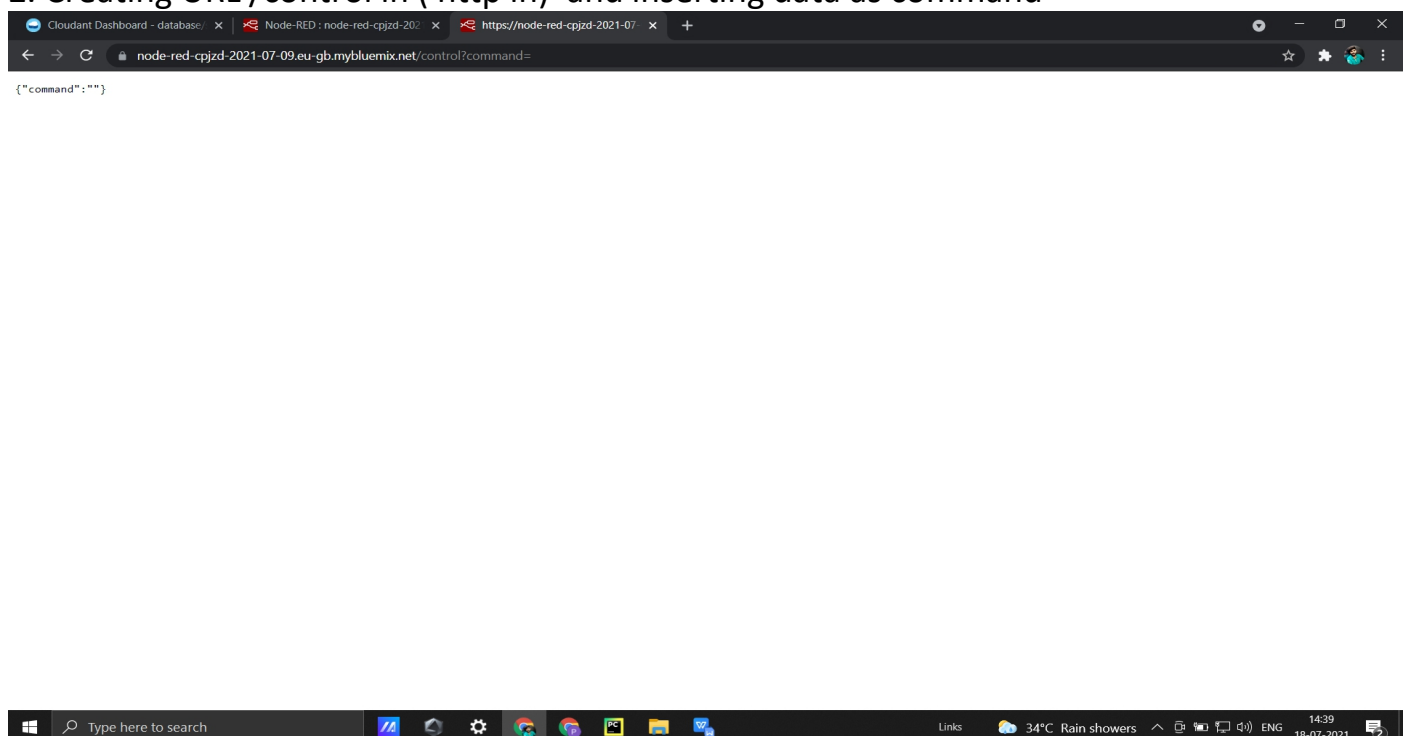


Develop a mobile application that takes the user input and sends it to IoT device (python code). print the received data in python shell.  
 Keep a text box to accept the user input.integrate a submit button.  
 whenever user enters the text input in text box and clicks the button the data should be sent to IBM cloud using URL(HTTP API).

## 1. Creating a flow file in node red



## 2. Creating URL /control in ( http in ) and inserting data as command



### 3. Configuration of button to read the app data when the button submit is pressed

The screenshot displays the Node-RED web interface in a browser. The main workspace shows a flow with a 'SUBMIT' button node connected to a 'msg.payload' node, which is then connected to an 'IBM IoT' node. The 'Edit button node' panel is open, showing the configuration for the 'SUBMIT' node. The 'Properties' section includes fields for Group, Size, Icon, Label, Tooltip, Color, and Background. The 'When clicked, send:' section is configured with a Payload of `{ "command": "submit" }` and a Topic of `msg. topic`. The 'Info' panel on the right shows the node's details, including its ID `"37d567b4.afe498"` and Type `ui_button`. The bottom status bar indicates the time is 14:38 on 18-07-2021.

Node-RED interface showing the configuration of a button node (SUBMIT) to read app data when pressed.

The flow diagram shows the SUBMIT button node connected to a msg.payload node, which is then connected to an IBM IoT node. The IBM IoT node is connected to a msg.payload node, which is then connected to a http node.

The Edit button node configuration shows the following properties:

- Group: [IOT APP] DATA
- Size: auto
- Icon: optional icon
- Label: SUBMIT
- Tooltip: optional tooltip
- Color: optional text/icon color
- Background: optional background color

When clicked, send:

- Payload: `{ "command": "submit" }`
- Topic: `msg. topic`

Additional options:

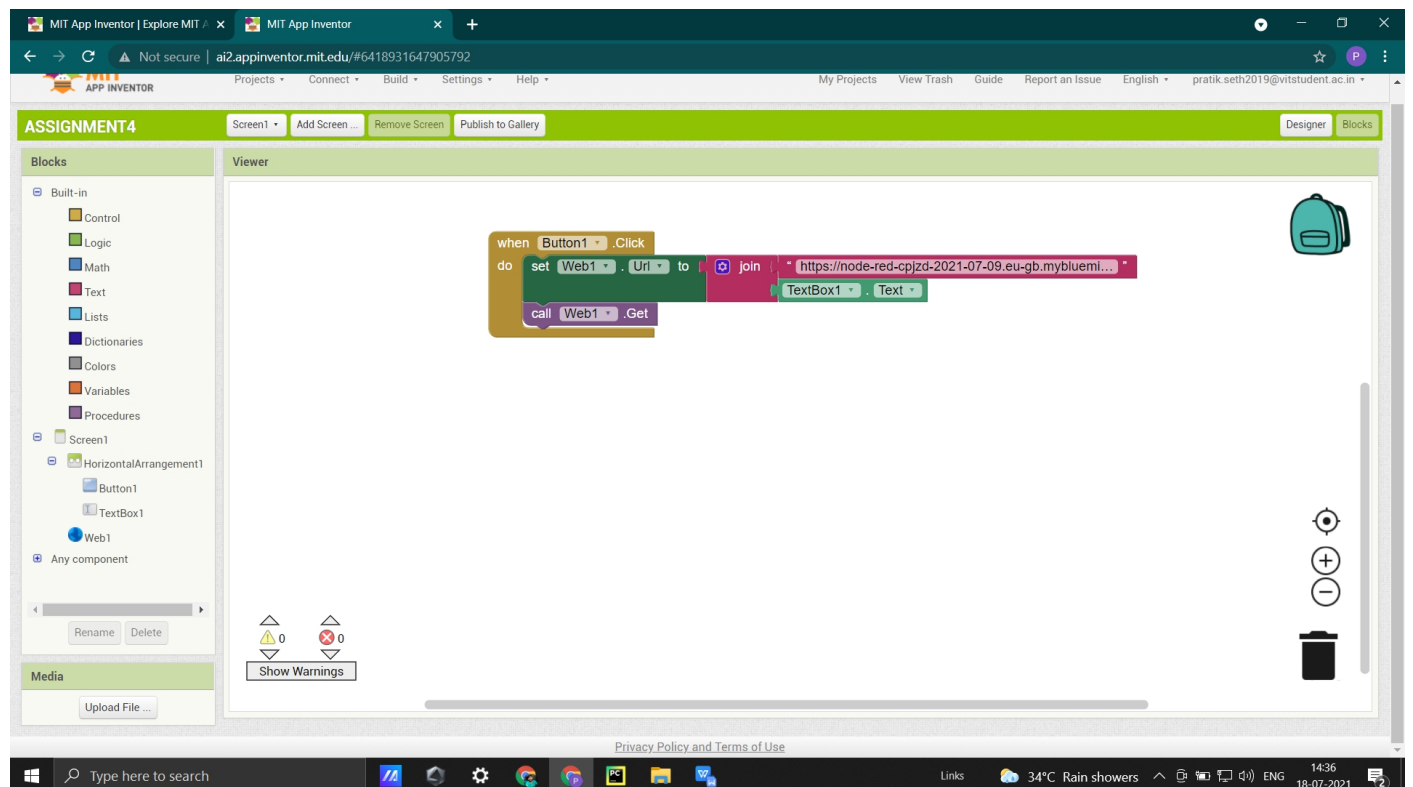
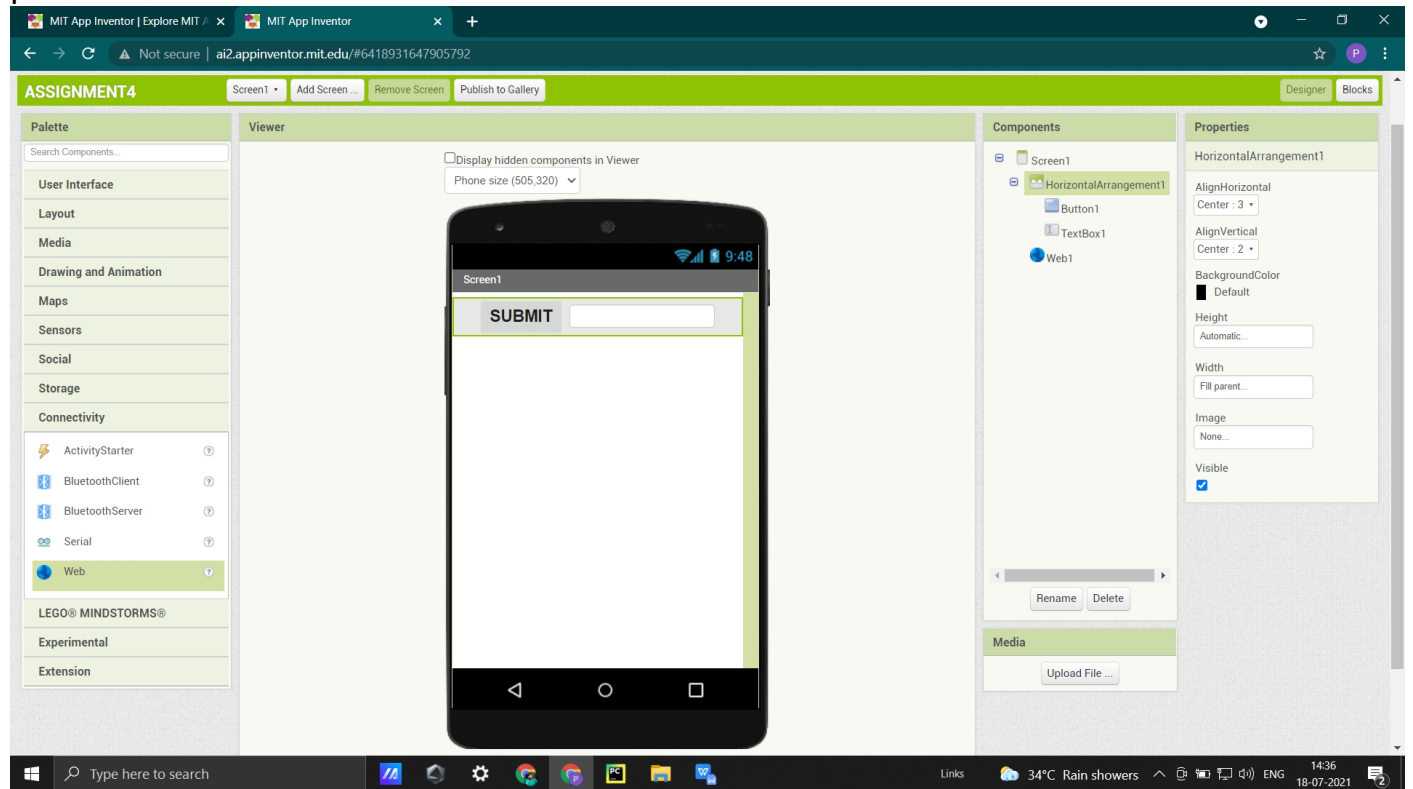
- If msg arrives on input, emulate a button click: ☐
- Name: Name
- Enabled: ☐

The Info panel shows the node details:

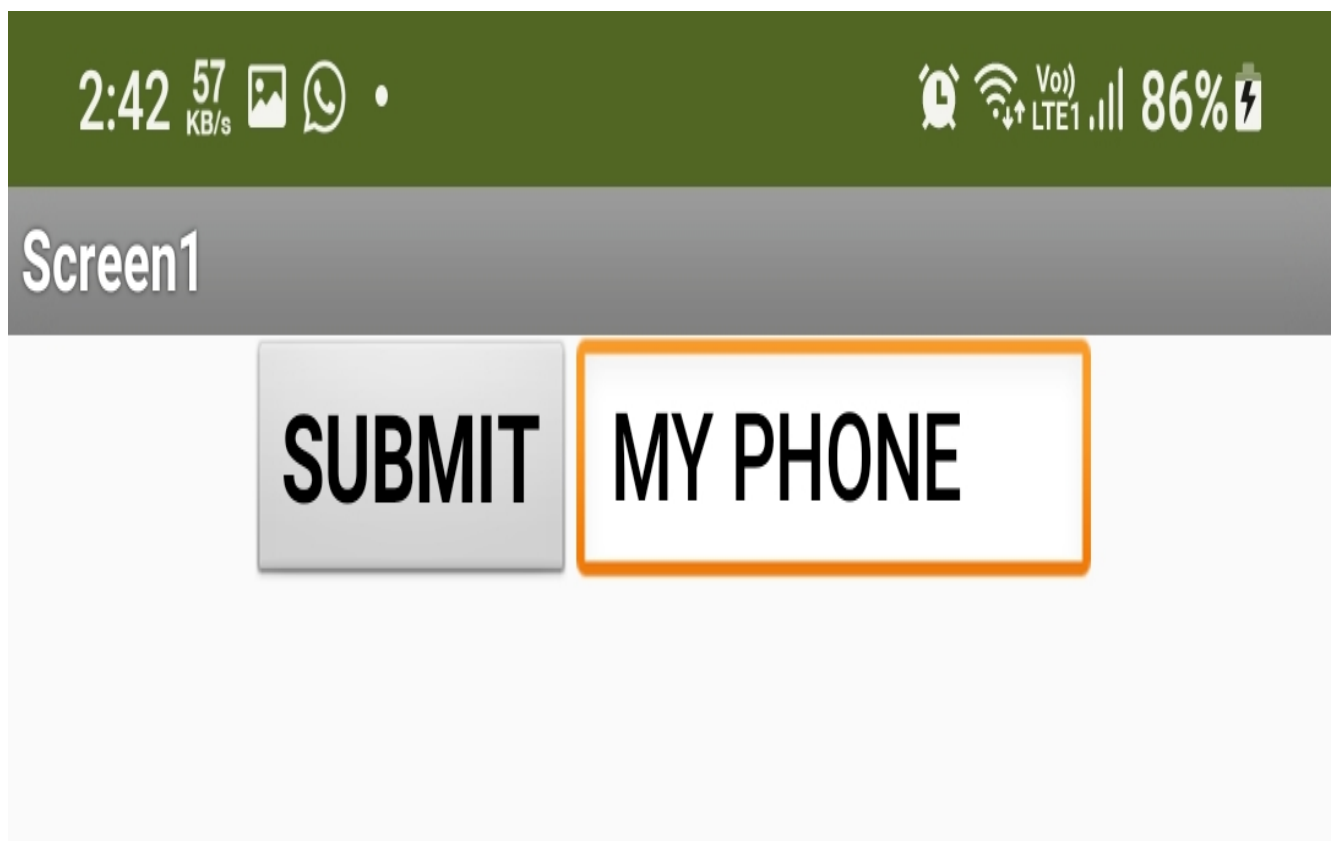
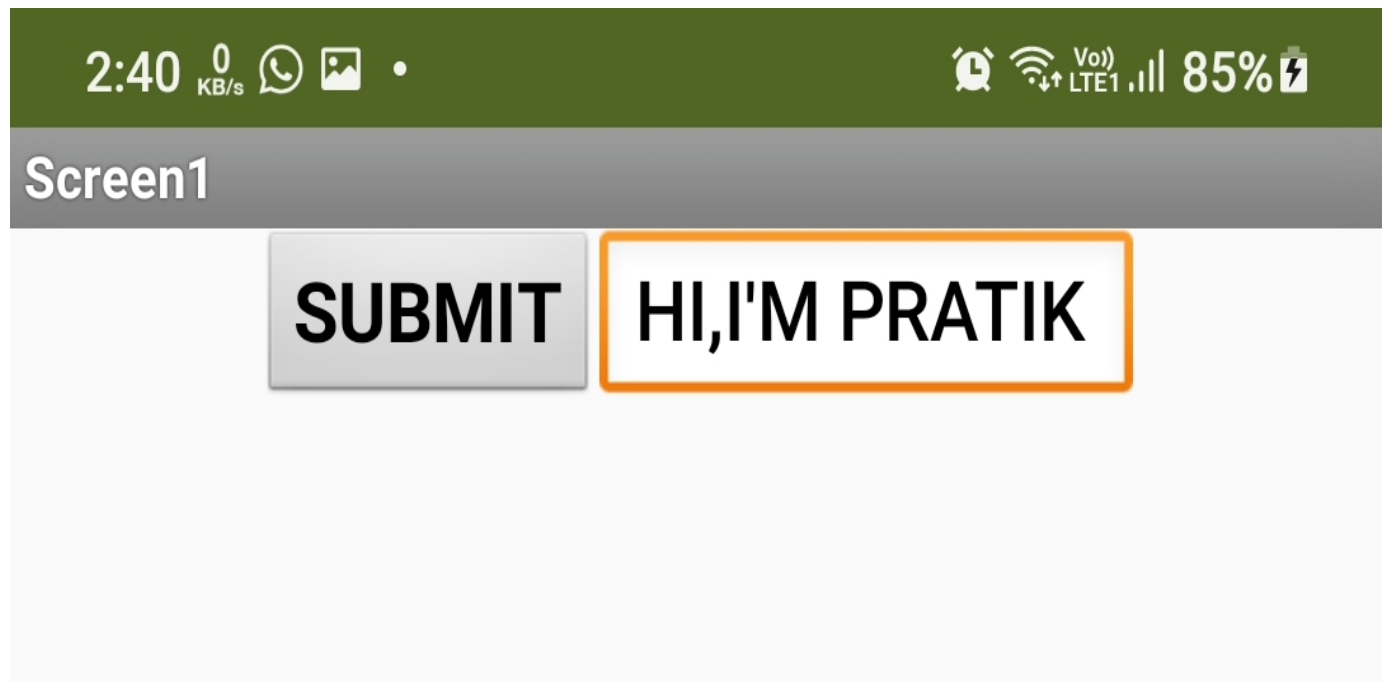
- Node: `"37d567b4.afe498"`
- Type: `ui_button`

Pressing `enter` will edit the first node in the current selection

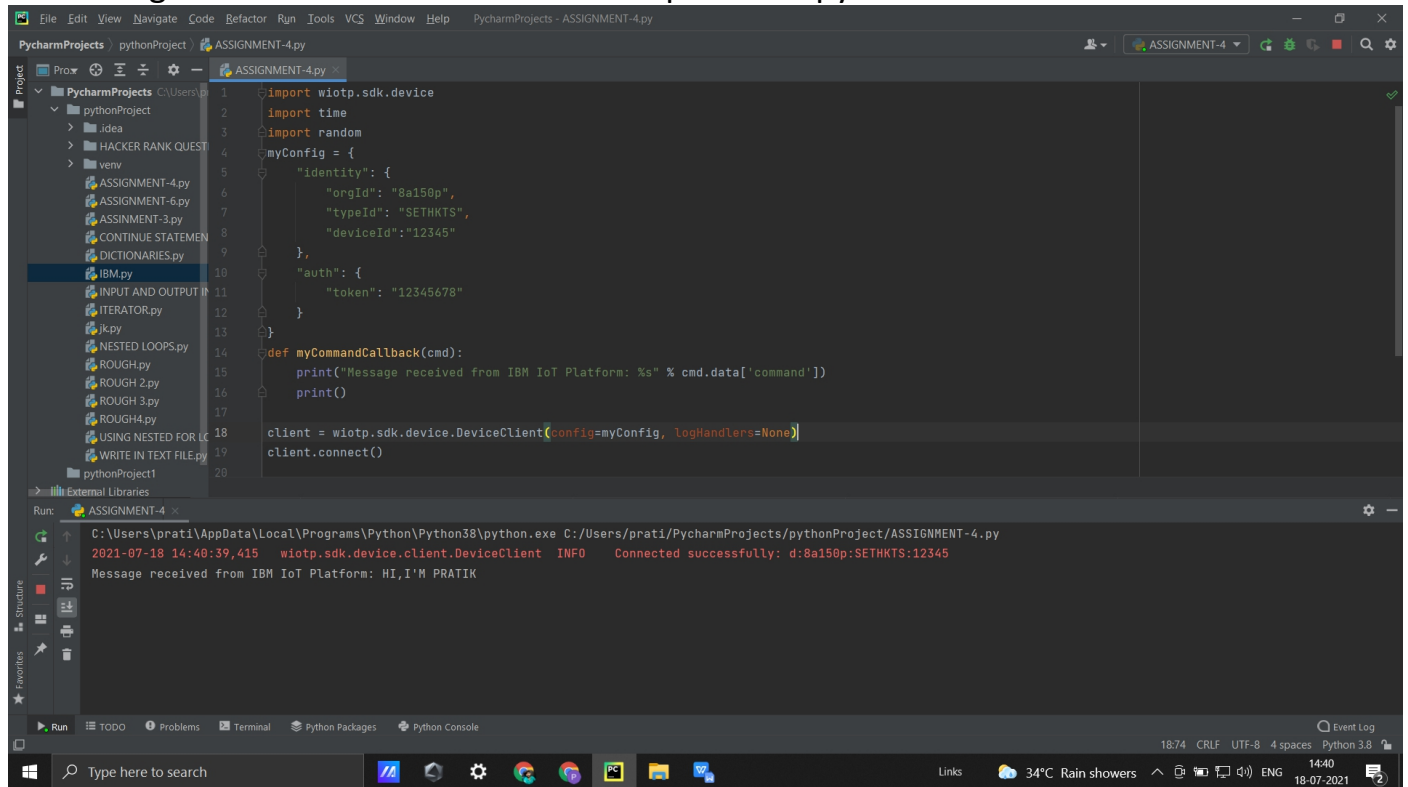
## 4. Creating MIT app for sending user input data to python code when submit button is pressed



5. Sending data from phone MIT AI2 companion



## 6. Reading the send data from MIT AI2 companion in python



```
File Edit View Navigate Code Refactor Run Tools VCS Window Help PycharmProjects - ASSIGNMENT-4.py
PycharmProjects > pythonProject > ASSIGNMENT-4.py
ASSIGNMENT-4.py
1 import wiotp.sdk.device
2 import time
3 import random
4 myConfig = {
5     "identity": {
6         "orgId": "8a150p",
7         "typeId": "SETHKTS",
8         "deviceId": "12345"
9     },
10    "auth": {
11        "token": "12345678"
12    }
13 }
14 def myCommandCallback(cmd):
15     print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
16     print()
17
18 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
19 client.connect()
20
```

Run: ASSIGNMENT-4

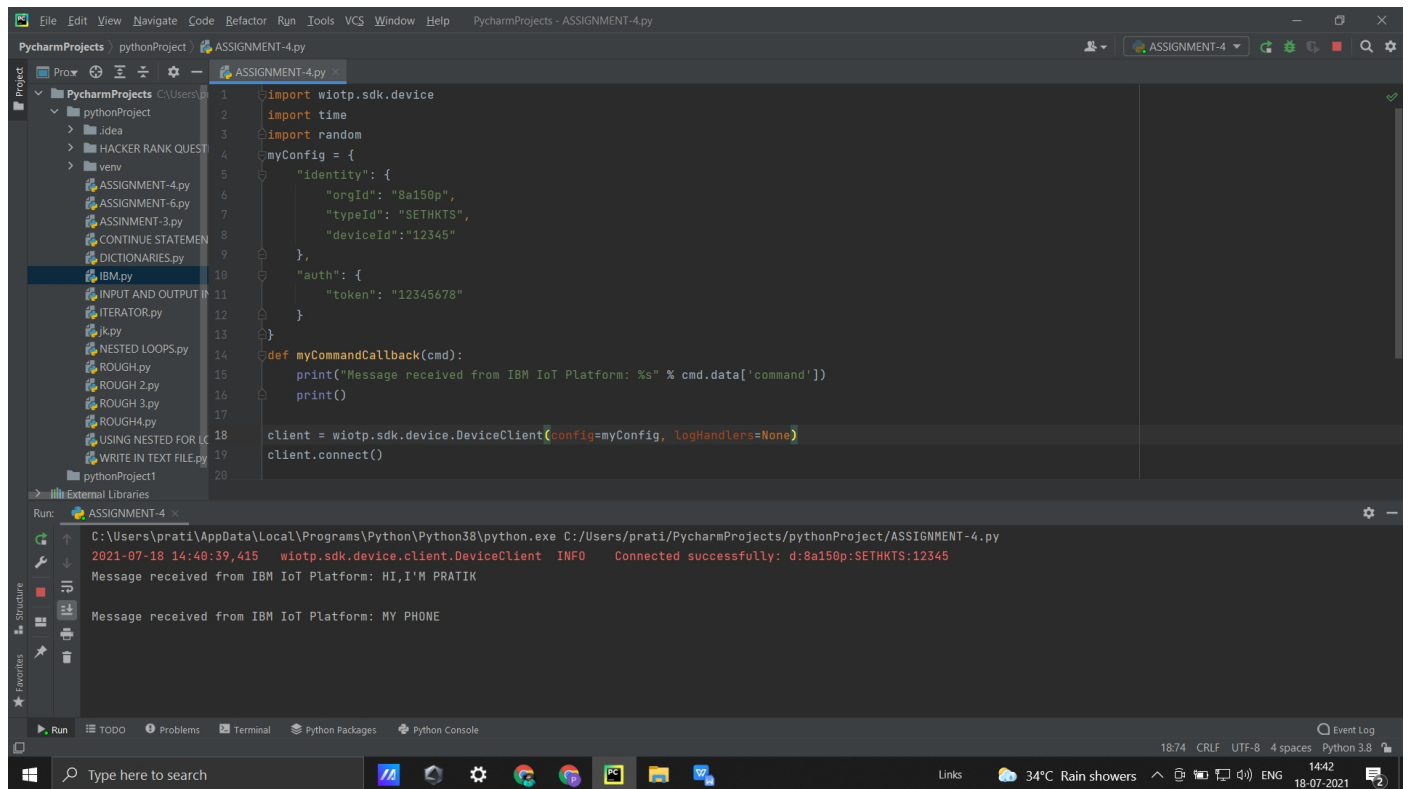
C:\Users\prati\AppData\Local\Programs\Python\Python38\python.exe C:/Users/prati/PycharmProjects/pythonProject/ASSIGNMENT-4.py

2021-07-18 14:40:39,415 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:8a150p:SETHKTS:12345

Message received from IBM IoT Platform: HI,I'M PRATIK

18:74 CRLF UTF-8 4 spaces Python 3.8

14:40 18-07-2021



```
File Edit View Navigate Code Refactor Run Tools VCS Window Help PycharmProjects - ASSIGNMENT-4.py
PycharmProjects > pythonProject > ASSIGNMENT-4.py
ASSIGNMENT-4.py
1 import wiotp.sdk.device
2 import time
3 import random
4 myConfig = {
5     "identity": {
6         "orgId": "8a150p",
7         "typeId": "SETHKTS",
8         "deviceId": "12345"
9     },
10    "auth": {
11        "token": "12345678"
12    }
13 }
14 def myCommandCallback(cmd):
15     print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
16     print()
17
18 client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
19 client.connect()
20
```

Run: ASSIGNMENT-4

C:\Users\prati\AppData\Local\Programs\Python\Python38\python.exe C:/Users/prati/PycharmProjects/pythonProject/ASSIGNMENT-4.py

2021-07-18 14:40:39,415 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:8a150p:SETHKTS:12345

Message received from IBM IoT Platform: HI,I'M PRATIK

Message received from IBM IoT Platform: MY PHONE

18:74 CRLF UTF-8 4 spaces Python 3.8

14:42 18-07-2021