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Course: Smart Bridge IoT

Assignment 4

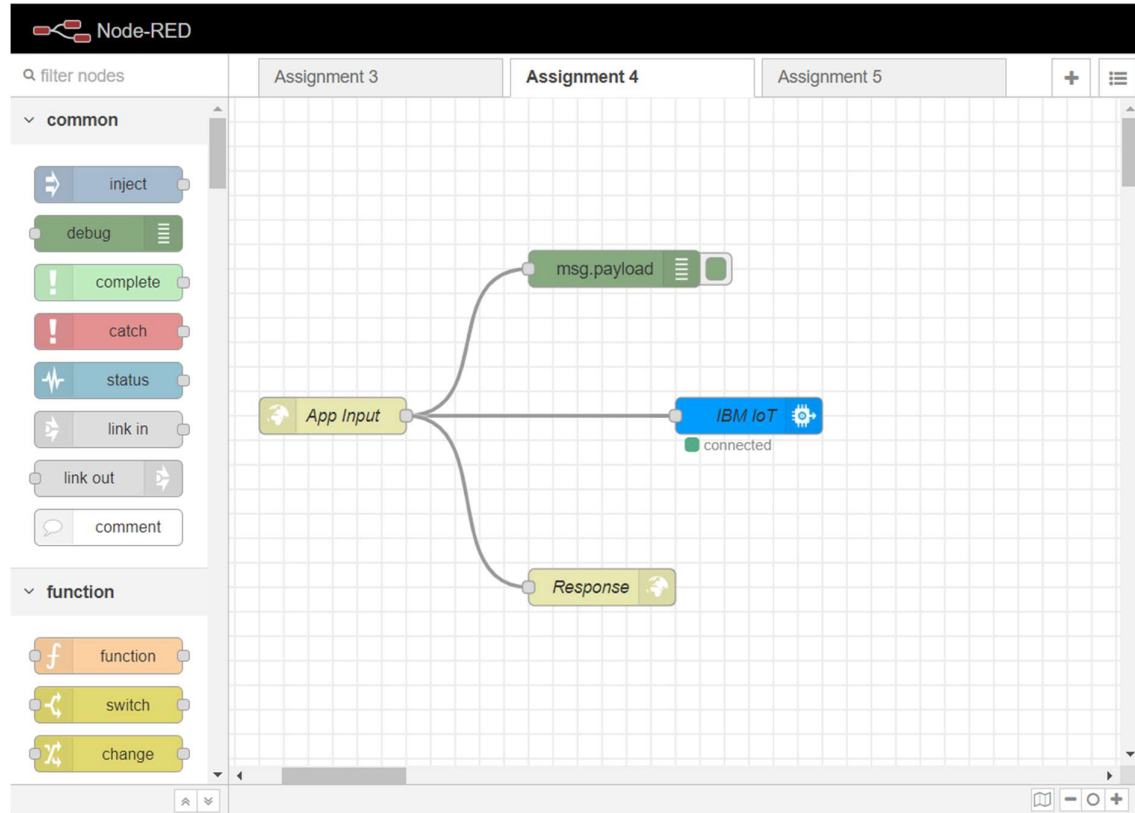
Task:

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

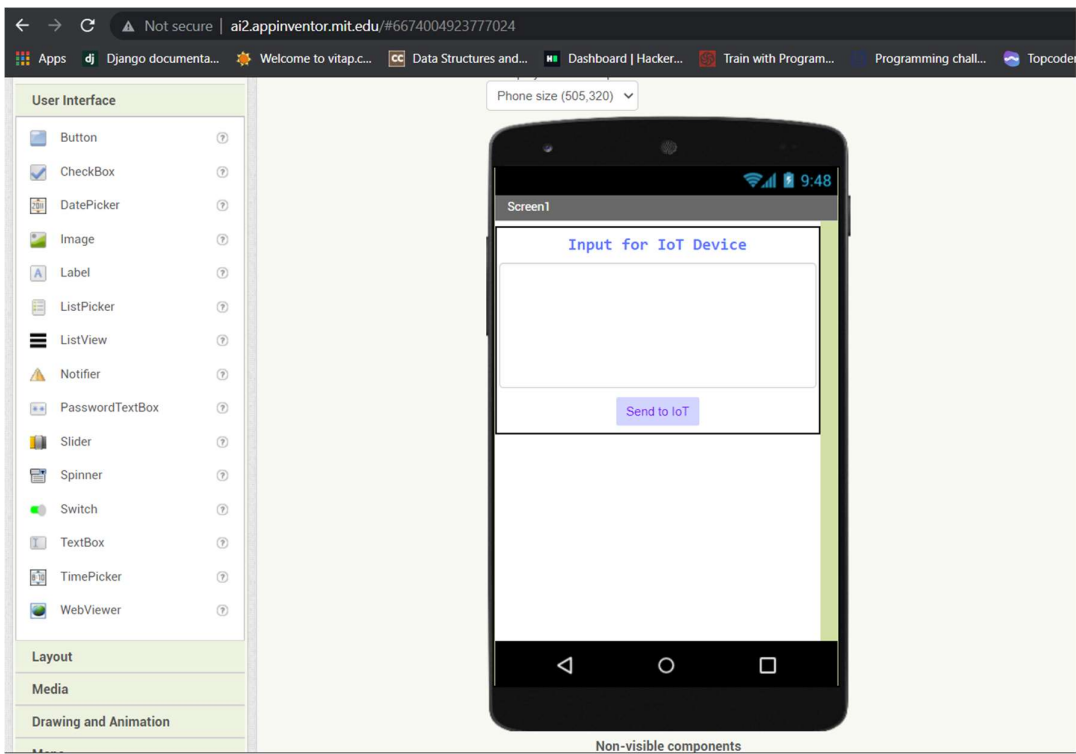
Keep a text box to accept the user input. Integrate a submit button.

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).

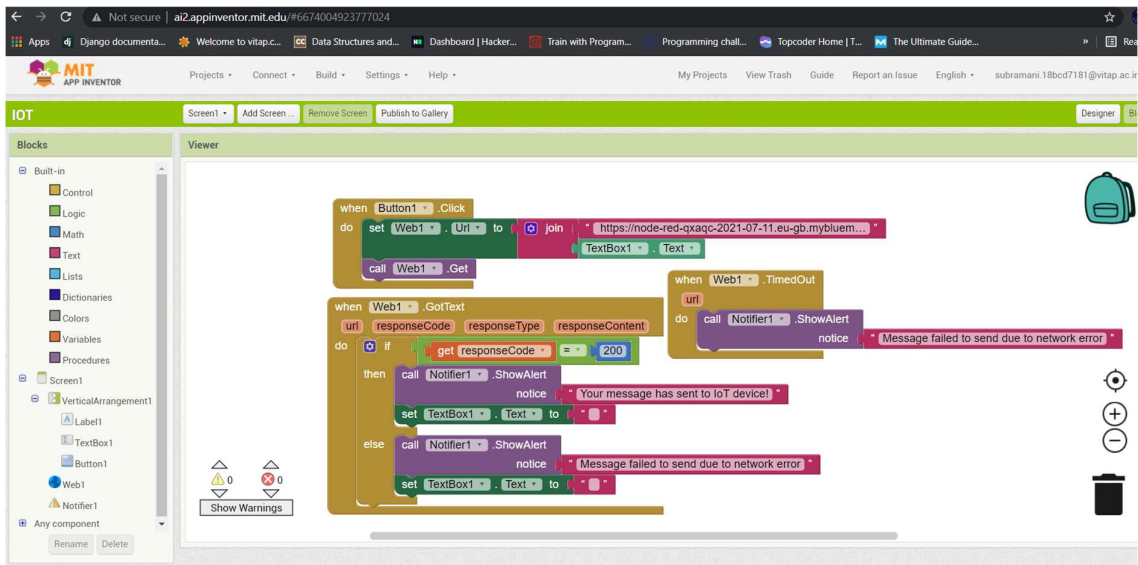
Node Red Architecture:



MIT App Design:



MIT APP Logic Blocks:



Python Code:

```
from pytz import timezone

from wiotp.sdk.device import DeviceClient

config = {
    "identity":{
        "orgId":"8vprpv",
        "typeId":"First",
        "deviceId":"1"
    },
    "auth":{
        "token":"12345678"}
}

def callBackFunc(cmd):

    print("=====\\n")

    print(f"Text Entered on MIT App: {cmd.data['from_mit_app']}\n")

    print("=====\\n\\n")

    client = DeviceClient(config=config)

    client.connect()

    while True:

        client.commandCallback = callBackFunc

    client.disconnect()
```

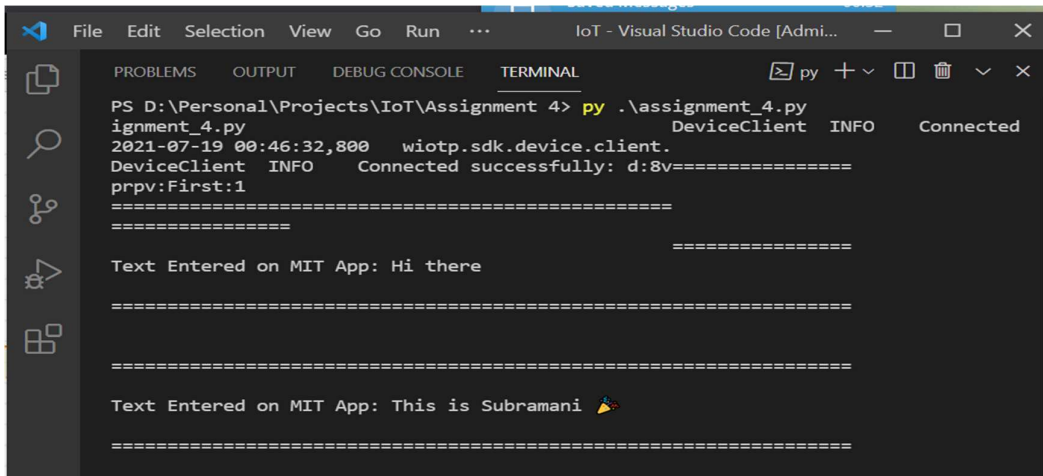
Working Prototype:

1. Sending message when IoT is enabled

a. App View (notification will be enabled on success)



b. Python Console Output



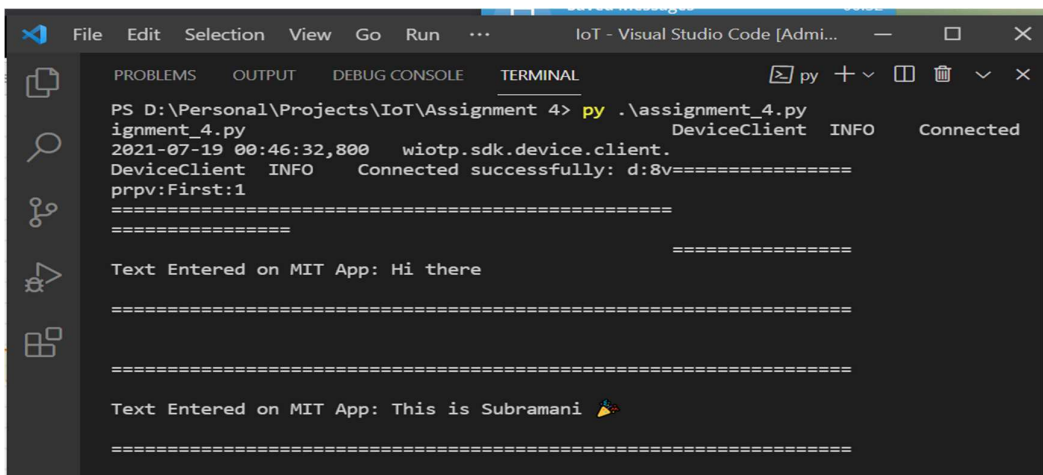
```
PS D:\Personal\Projects\IoT\Assignment 4> py .\assignment_4.py
DeviceClient INFO Connected
2021-07-19 00:46:32,800 wiotp.sdk.device.client.
DeviceClient INFO Connected successfully: d:8v=====
prpv:First:1
=====
Text Entered on MIT App: Hi there
=====
Text Entered on MIT App: This is Subramani 🚀
=====
```

2. Sending message when IoT is disabled or connection time-out

a. App View (notification will be enabled on Failure)



b. Python Console



```
PS D:\Personal\Projects\IoT\Assignment 4> py .\assignment_4.py
DeviceClient INFO Connected
2021-07-19 00:46:32,800 wiotp.sdk.device.client.
DeviceClient INFO Connected successfully: d:8v=====
prpv:First:1
=====
Text Entered on MIT App: Hi there
=====
Text Entered on MIT App: This is Subramani 🚀
=====
```