Assignment – 4

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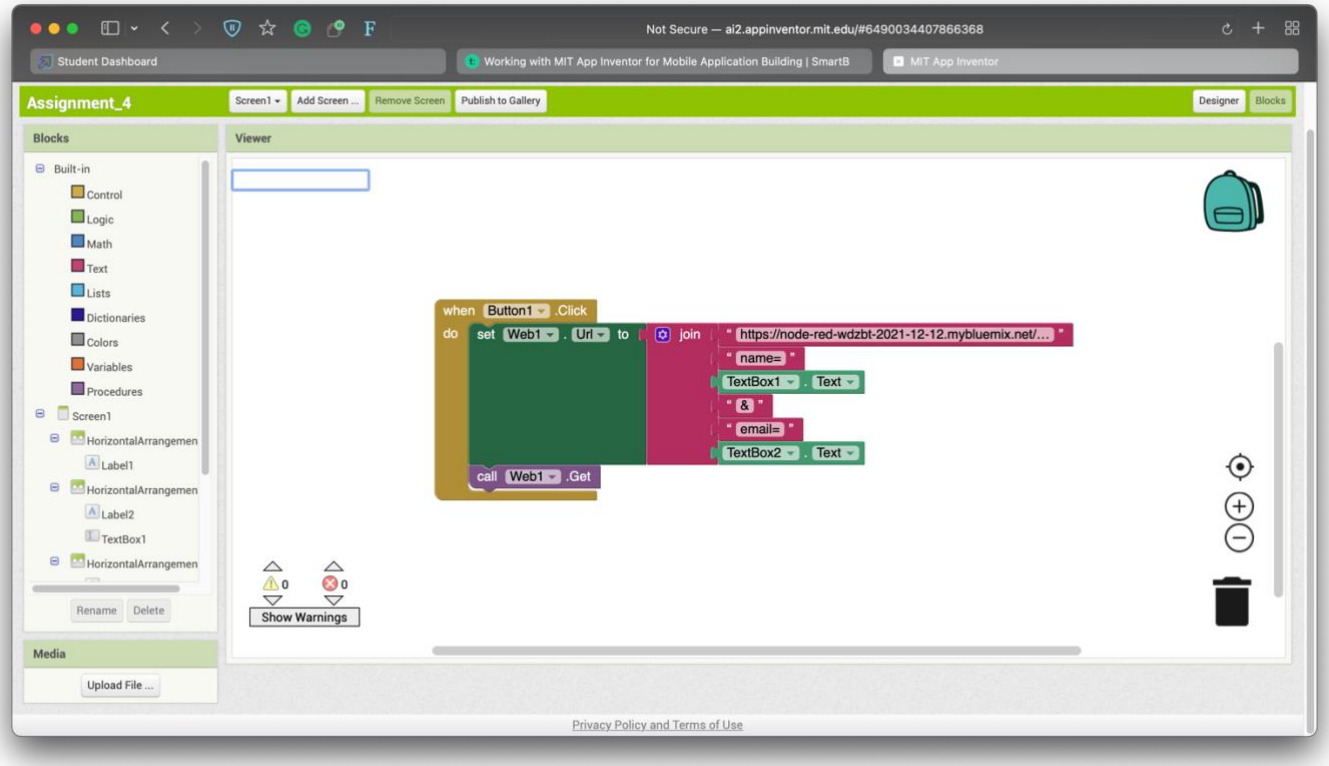
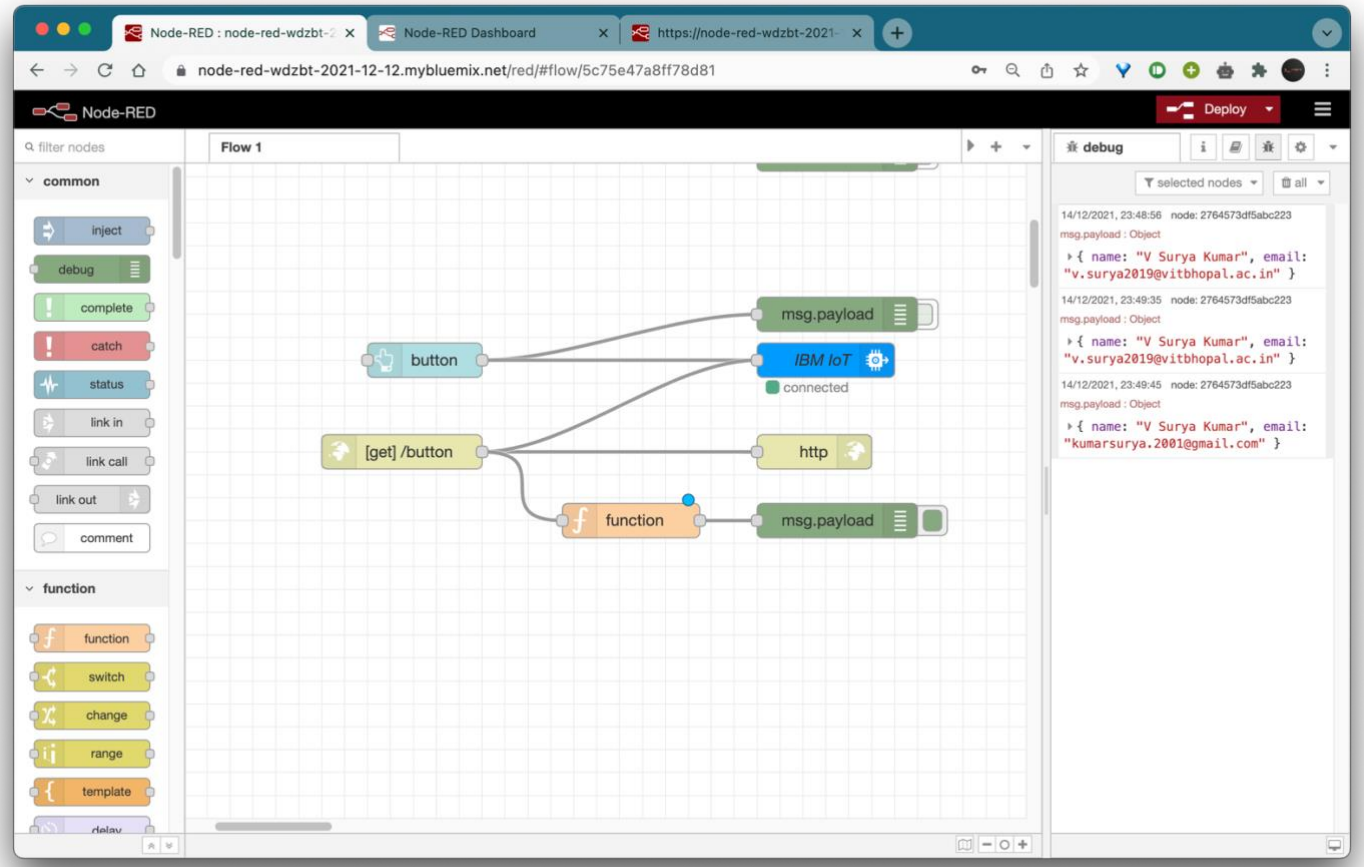
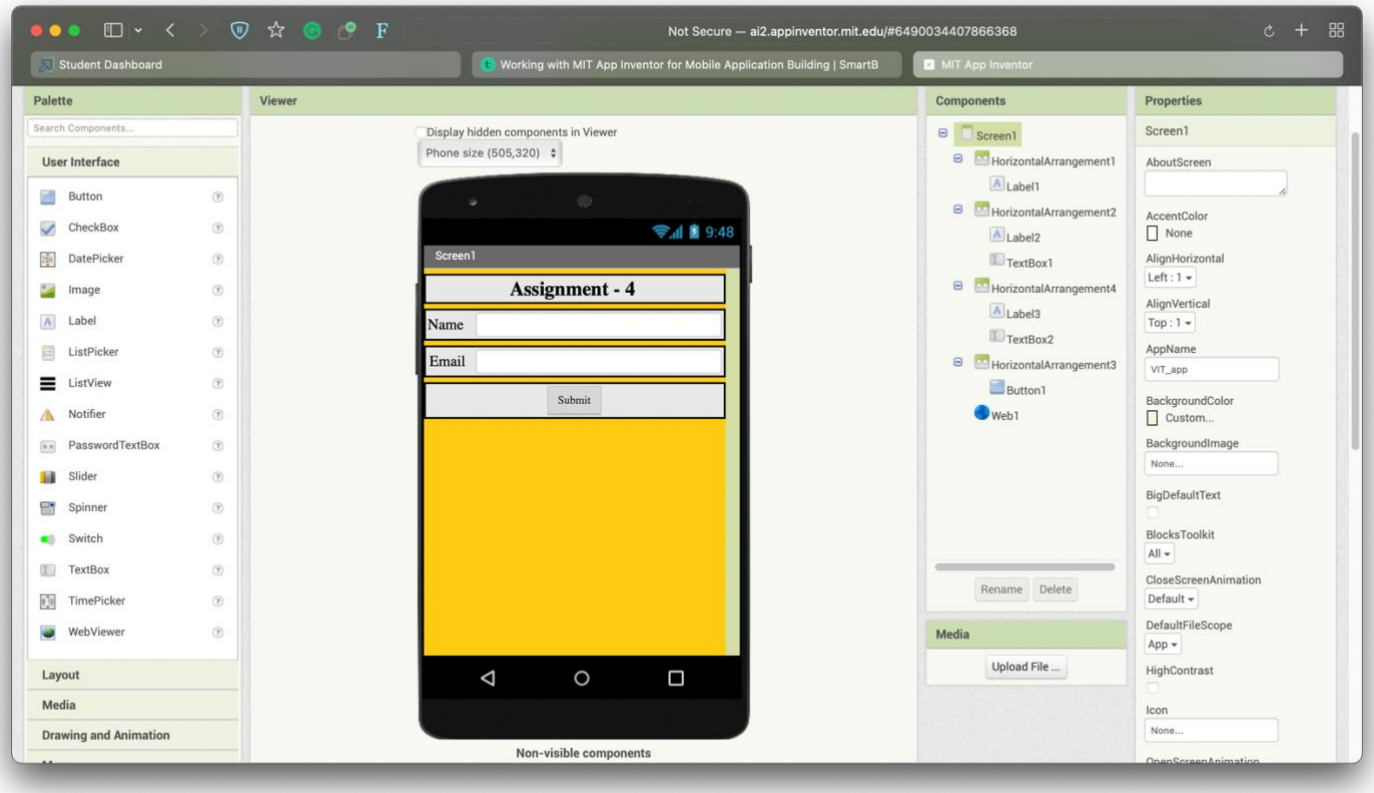
Application ID : SPS_APL_20210013738

Q. 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).

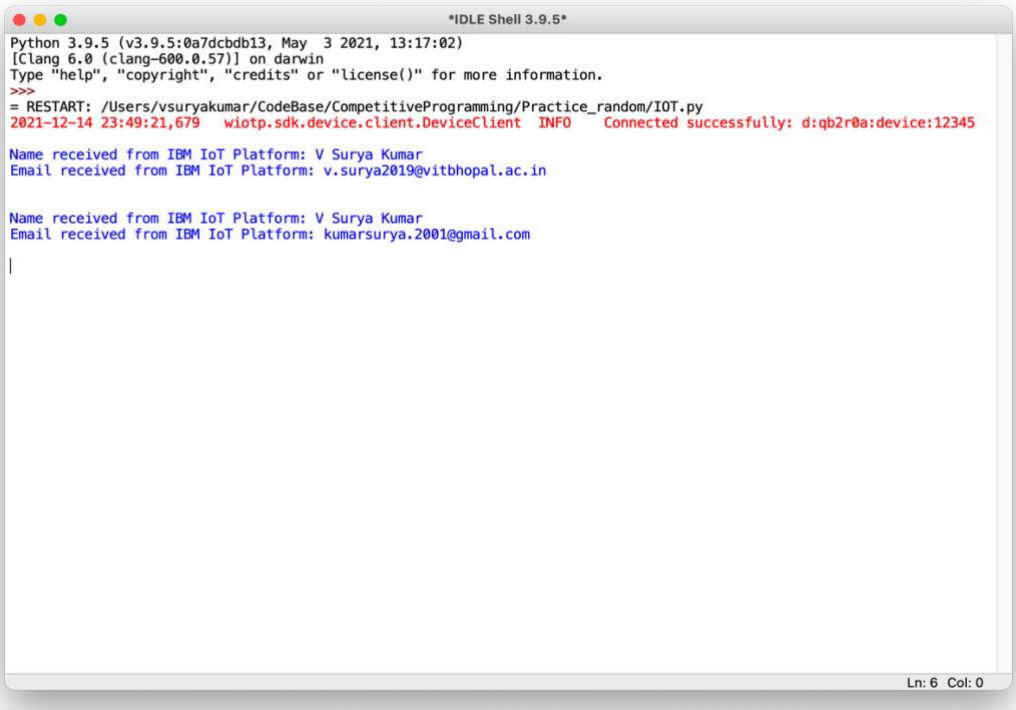
Circuit Diagram:




Node-RED : node-red-wdzbt-2
Node-RED Dashboard
https://node-red-wdzbt-2021-
node-red-wdzbt-2021-12-12.mybluemix.net/red/#flow/5c75e47a8ff78d81
Node-RED
Deploy
filter nodes
Flow 1
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
button
msg.payload
IBM IoT
connected
[get] /button
http
function
msg.payload
debug
selected nodes
all
14/12/2021, 23:48:56 node: 2764573df5abc223
msg.payload : Object
{ name: "V Surya Kumar", email: "v.surya2019@vitbhopal.ac.in" }
14/12/2021, 23:49:35 node: 2764573df5abc223
msg.payload : Object
{ name: "V Surya Kumar", email: "v.surya2019@vitbhopal.ac.in" }
14/12/2021, 23:49:45 node: 2764573df5abc223
msg.payload : Object
{ name: "V Surya Kumar", email: "kumarsurya.2001@gmail.com" }


Not Secure — ai2.appinventor.mit.edu/#6490034407866368
Student Dashboard
Working with MIT App Inventor for Mobile Application Building | SmartB
MIT App Inventor
Palette
Search Components...
User Interface
Button
CheckBox
DatePicker
Image
Label
ListPicker
ListView
Notifier
PasswordTextBox
Slider
Spinner
Switch
TextBox
TimePicker
WebViewer
Layout
Media
Drawing and Animation
Viewer
Display hidden components in Viewer
Phone size (505,320)
9:48
Screen1
Assignment - 4
Name
Email
Submit
Non-visible components
Components
Screen1
HorizontalArrangement1
Label1
HorizontalArrangement2
Label2
TextBox1
HorizontalArrangement4
Label3
TextBox2
HorizontalArrangement3
Button1
Web1
Rename
Delete
Media
Upload File ...
Properties
Screen1
AboutScreen
AccentColor
None
AlignHorizontal
Left : 1
AlignVertical
Top : 1
AppName
VIT_app
BackgroundColor
Custom...
BackgroundImage
None...
BigDefaultText
BlocksToolkit
All
CloseScreenAnimation
Default
DefaultFileScope
App
HighContrast
Icon
None...

Code Output:



Code:

```
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "qb2r0a",
        "typeId": "device",
        "deviceId":"12345"
    },
    "auth": {
        "token": "wehdo6-tubhuq-gUxgih"
    }
}

def myCommandCallback(cmd):
    print()
    print("Name received from IBM IoT Platform: %s" % cmd.data['name'])
    print("Email received from IBM IoT Platform: %s" % cmd.data['email'])
    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=N
    # print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```