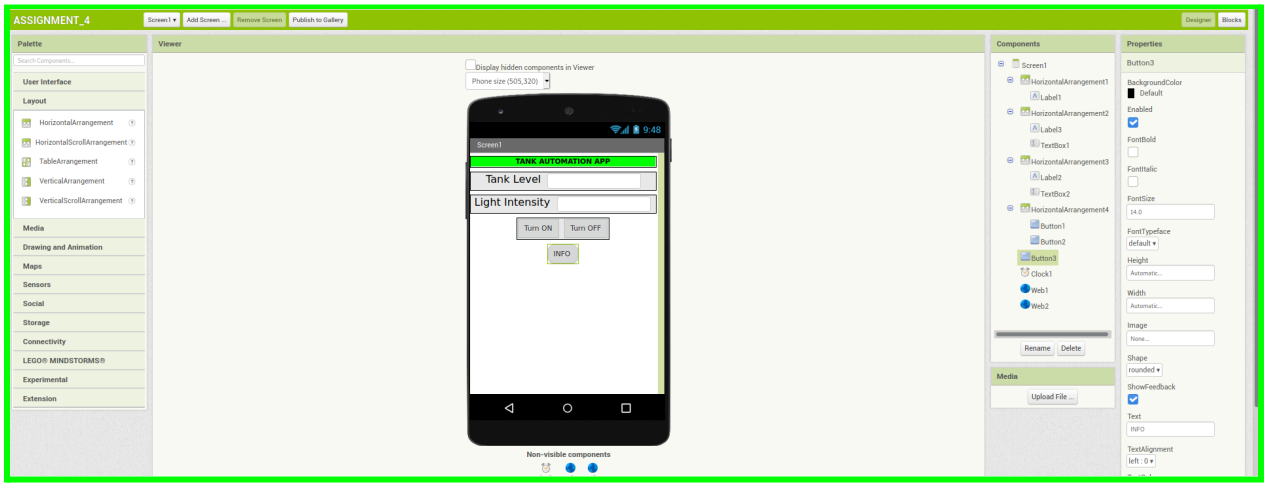
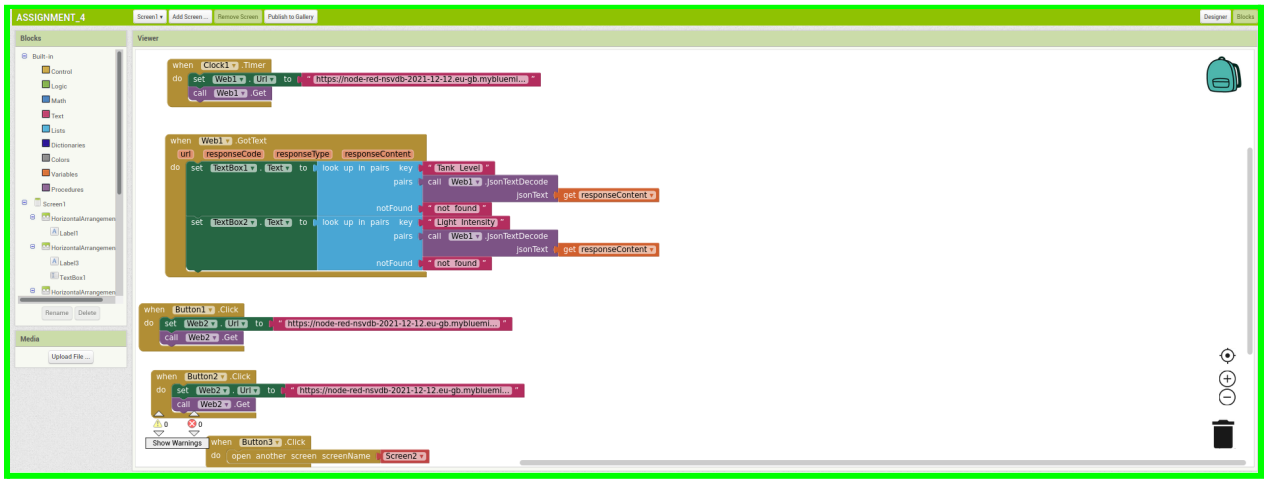
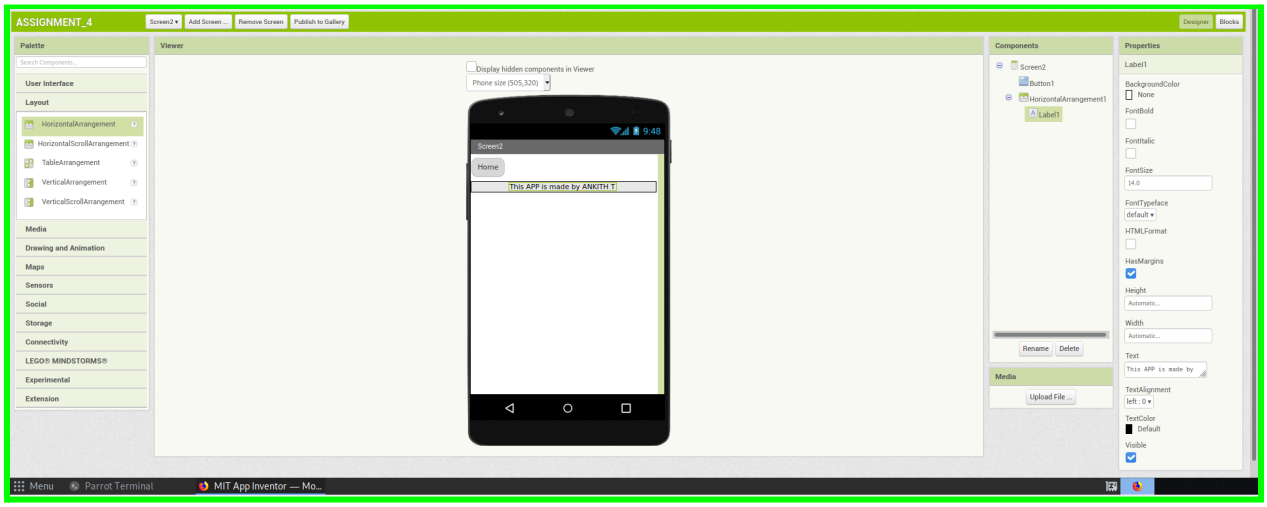
Screen 1


ASSIGNMENT_4
Palette
Viewer
Components
Properties
TANK AUTOMATION APP
Tank Level
Light Intensity
Turn ON
Turn OFF
INFO
Non-visible components

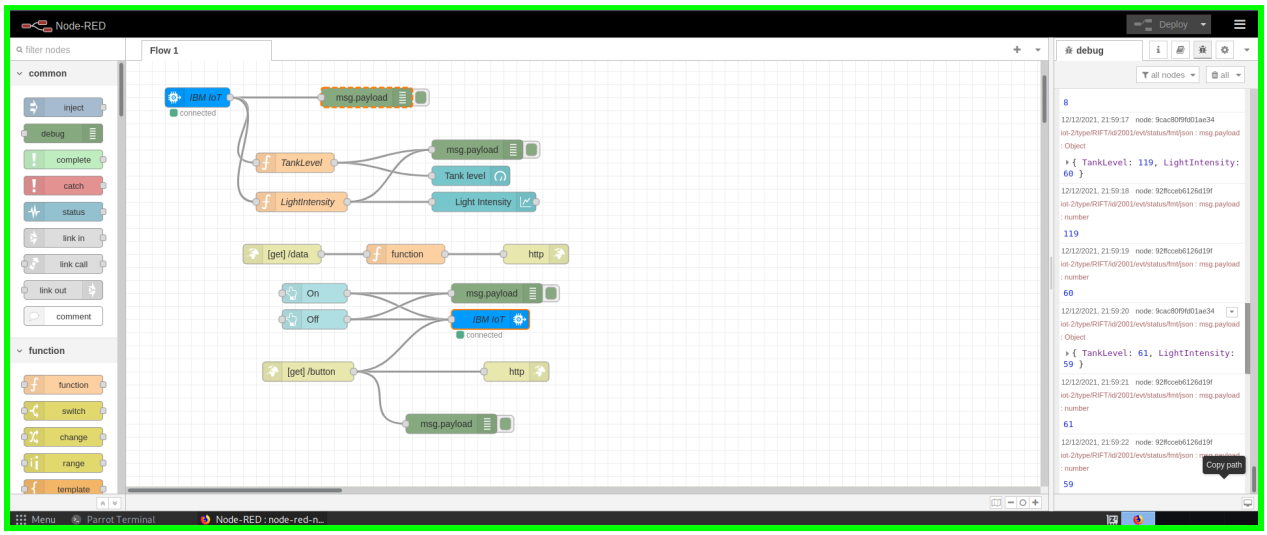

ASSIGNMENT_4
Blocks
Viewer
when Clock1 .Timer
when Web1 .GetText
when Button1 .Click
when Button2 .Click
when Button3 .Click
Show Warnings

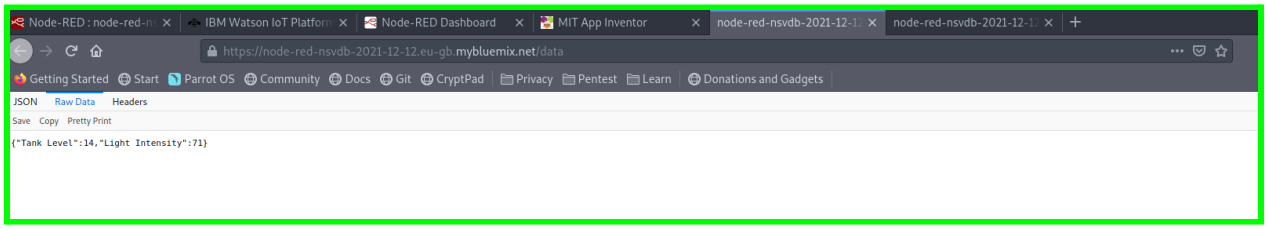
Screen 2

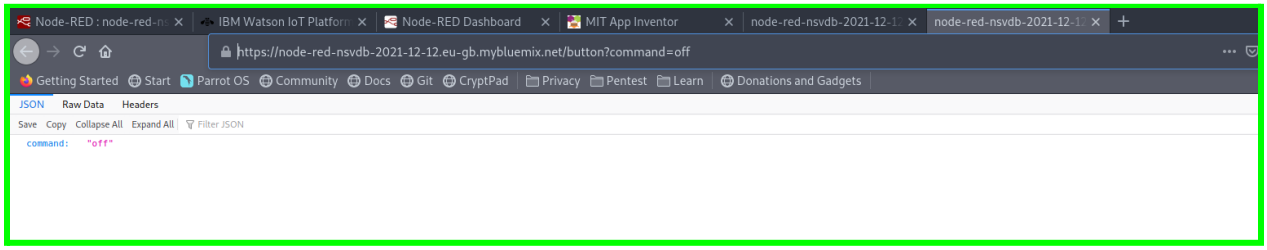

ASSIGNMENT_4
Screen2
Add Screen ...
Remove Screen
Publish to Gallery
Designer
Blocks
Palette
Viewer
Components
Properties
Display hidden components in Viewer
Phone size (505,320)
9:48
Screen2
Home
This APP is made by ANKITH T
Label1
Rename
Delete
Media
Upload File ...
Menu
Parrot Terminal
MIT App Inventor — Mo...

ASSIGNMENT_4
Blocks
Viewer
when Button1 .Click
do open another screen screenName Screen1
Show Warnings
Rename
Delete
Media
Upload File ...
Menu
Parrot Terminal
MIT App Inventor — Mo...

NODE-RED


Node-RED
Deploy
Flow 1
debug
common
inject
debug
complete
catch
status
link in
link call
link out
comment
function
function
switch
change
range
template
IBM IoT
connected
msg.payload
TankLevel
Tank level
LightIntensity
Light Intensity
[get] /data
function
http
On
Off
[get] /button
{ TankLevel: 119, LightIntensity: 60 }
{ TankLevel: 61, LightIntensity: 59 }
Copy path


https://node-red-nsvdb-2021-12-12.eu-gb.mybluemix.net/data
JSON
Raw Data
Headers
Save
Copy
Pretty Print
{"Tank Level":14,"Light Intensity":71}


https://node-red-nsvdb-2021-12-12.eu-gb.mybluemix.net/button?command=off
JSON
Raw Data
Headers
Save
Copy
Collapse All
Expand All
Filter JSON
command: "off"

Python Code

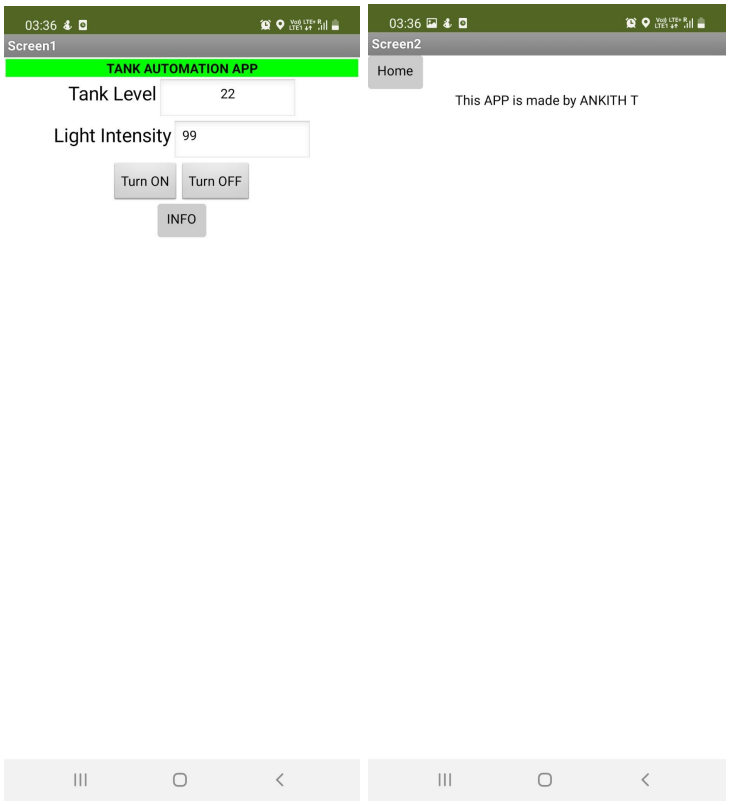
```
File  Edit  View  Search  Terminal  Help
 GNU nano 5.4                                                    iot.py
import wiotp.sdk.device
import time
import random

myConfig = {
    "identity": {
        "orgId": "e9psgv",
        "typeId": "RIFT",
        "deviceId": "2001"
    },
    "auth": {
        "token": "12345678"
    }
}

def myCommandCallback(cmd):
    print("Message recieved from IBM IoT Platform: %s" % cmd.data)
    m=cmd.data['command']
    print(m)
    if m == "on":
                print("Switched ON")
    elif m== "off":
                print("Switched OFF")

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

while True:
    tanklvl=random.randint(-20,125)
    lightint=random.randint(0,100)
    myData={'TankLevel':tanklvl, 'LightIntensity': lightint}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0 , onPublish=None)
    print("Published Data Successfully: %s",myData)
    client.commandCallback = myCommandCallback
    time.sleep(2)
client.disconnect()
```

```
[user@parrot]-[~]
 $python3 iot.py
2021-12-12 22:05:20,932   wiotp.sdk.device.client.DeviceClient  INFO    Connected successfully: d:e9psgv:RIFT:2001
Published Data Successfully: %s {'TankLevel': 69, 'LightIntensity': 56}
Published Data Successfully: %s {'TankLevel': 9, 'LightIntensity': 17}
Published Data Successfully: %s {'TankLevel': 35, 'LightIntensity': 64}
Published Data Successfully: %s {'TankLevel': 33, 'LightIntensity': 64}
Published Data Successfully: %s {'TankLevel': 86, 'LightIntensity': 31}
Published Data Successfully: %s {'TankLevel': 73, 'LightIntensity': 38}
Published Data Successfully: %s {'TankLevel': -13, 'LightIntensity': 28}
Message recieved from IBM IoT Platform: {'command': 'on'}
on
Switched ON
Published Data Successfully: %s {'TankLevel': 86, 'LightIntensity': 35}
Published Data Successfully: %s {'TankLevel': 20, 'LightIntensity': 73}
Published Data Successfully: %s {'TankLevel': 53, 'LightIntensity': 61}
Published Data Successfully: %s {'TankLevel': -9, 'LightIntensity': 37}
Published Data Successfully: %s {'TankLevel': 55, 'LightIntensity': 57}
Message recieved from IBM IoT Platform: {'command': 'off'}
off
Switched OFF
Published Data Successfully: %s {'TankLevel': 3, 'LightIntensity': 85}
Published Data Successfully: %s {'TankLevel': -11, 'LightIntensity': 49}
```

MIT A12 APP-View