

PROJECT CODE

TEAM ID	PNT2022TMID15087
PROJECT NAME	GAS LEAKAGE MONITORING AND ALTERING SYSTEM FOR INDUSTRIES

Python script

```
PNT2022TMID15087.py - C:\Users\Ajay Ganesh\Desktop\PNT2022TMID15087.py (3.7.0)
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import json
import random
import wiotp.sdk.device
import time
import ibmiotf.application
import ibmiotf.device
import requests, json

myConfig = {
    "identity": {
        "orgId": "hib5xp",
        "typeId": "rasberrypi",
        "deviceId": "1234"
    },
    "auth": {
        "token": "abdefgh"
    }
}

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

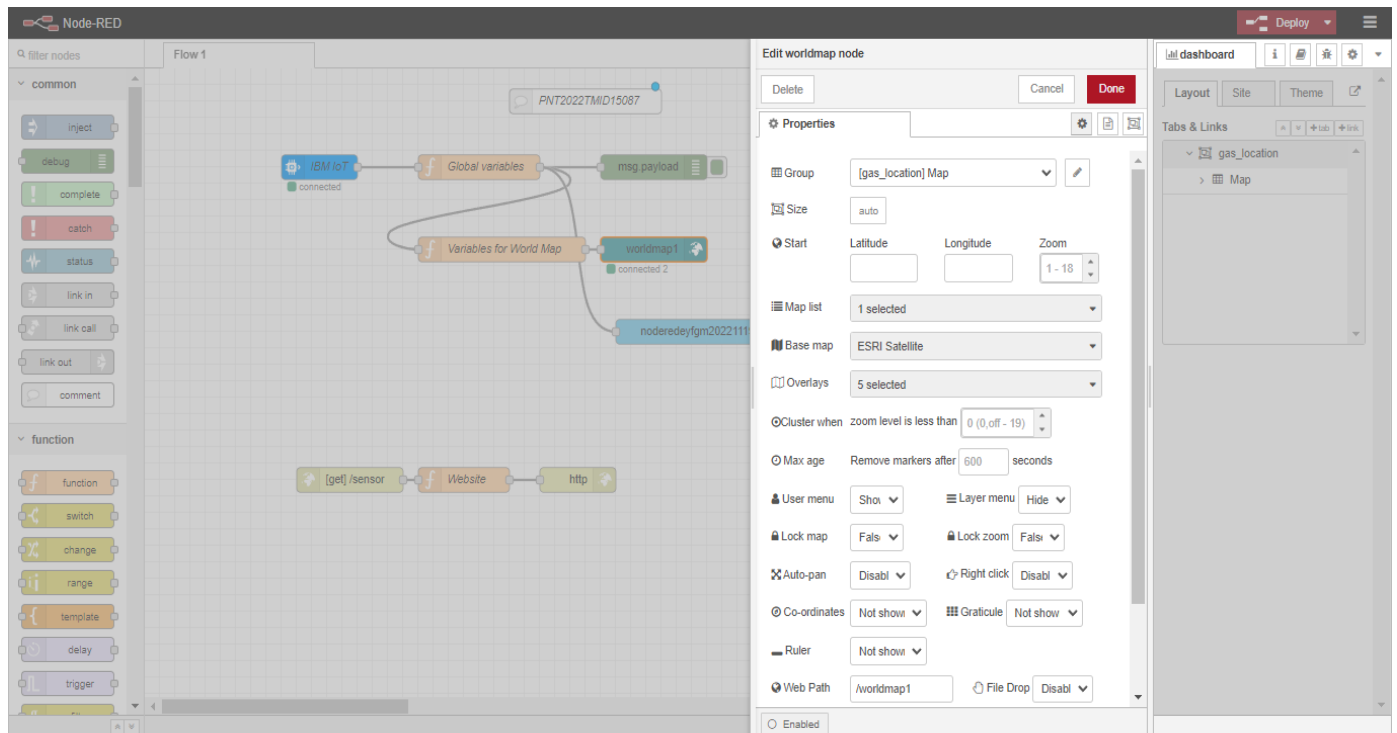
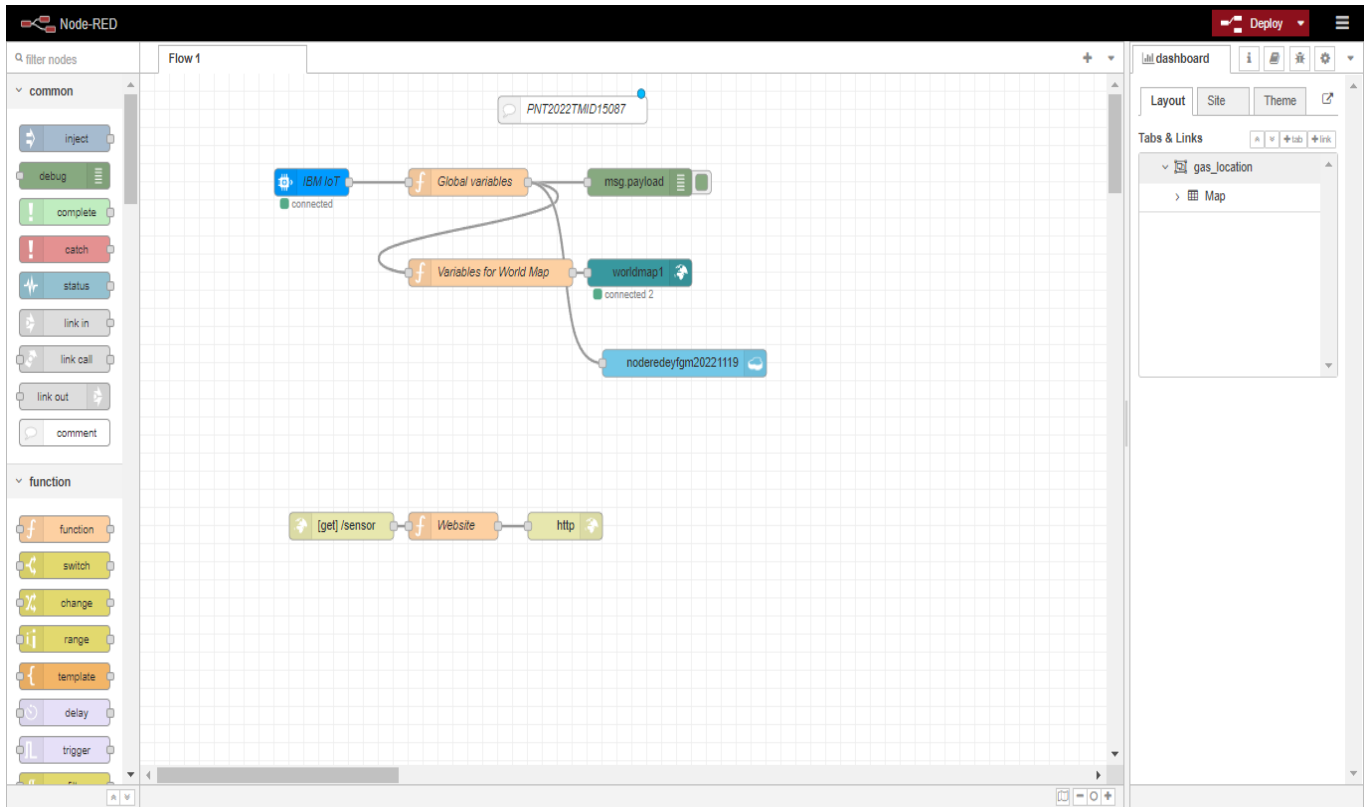
while True:
    name= "PNT2022TMID15087"

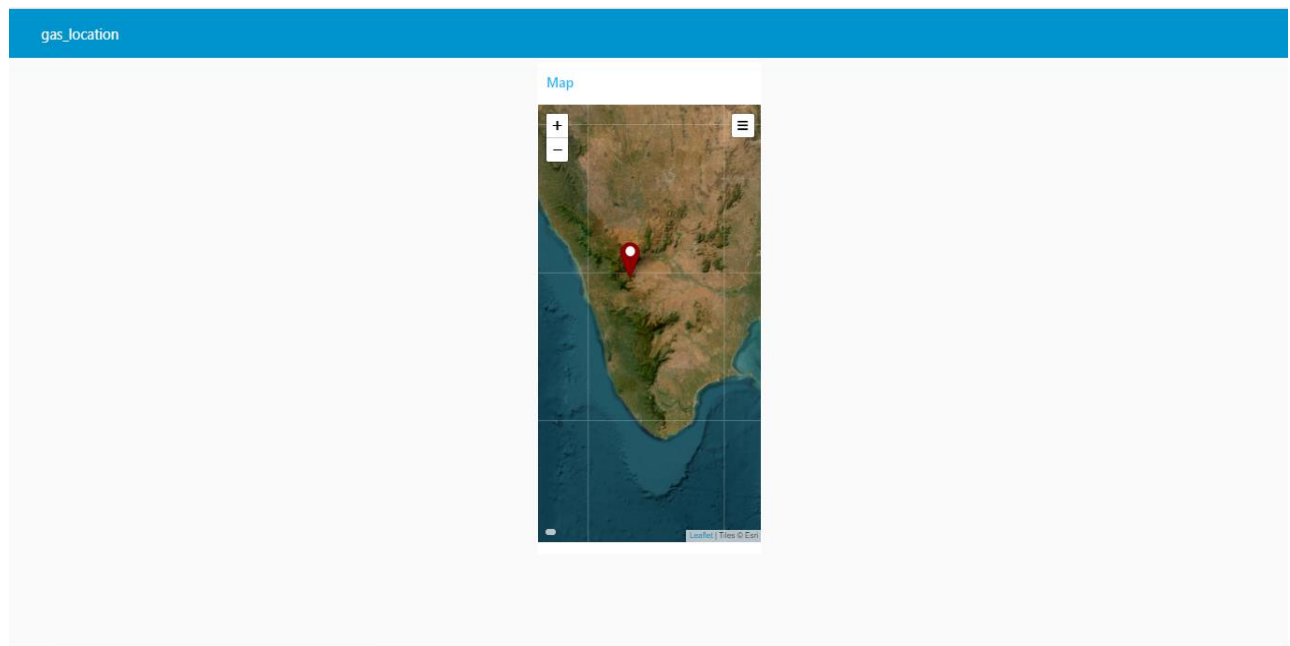
    latitude= 11.055712
    longitude= 76.804089
    gas = random.randint(0,600)
    temperature=random.randint(20,40)
    humidity=random.randint(40,60)
    if(gas>300):
        alarm=1
    else:
        alarm=0

    mydata={'name': name, 'lat':latitude,'lon':longitude, 'gas':gas, 'alarm':alarm,'temp':temperature,'hum':humidity}
    client.publishEvent(eventId="status", msgFormat="json", data=mydata, qos=0, onPublish=None)
    print("Data published to IBM IoT platform: ",mydata)
    time.sleep(10)

client.disconnect()
```

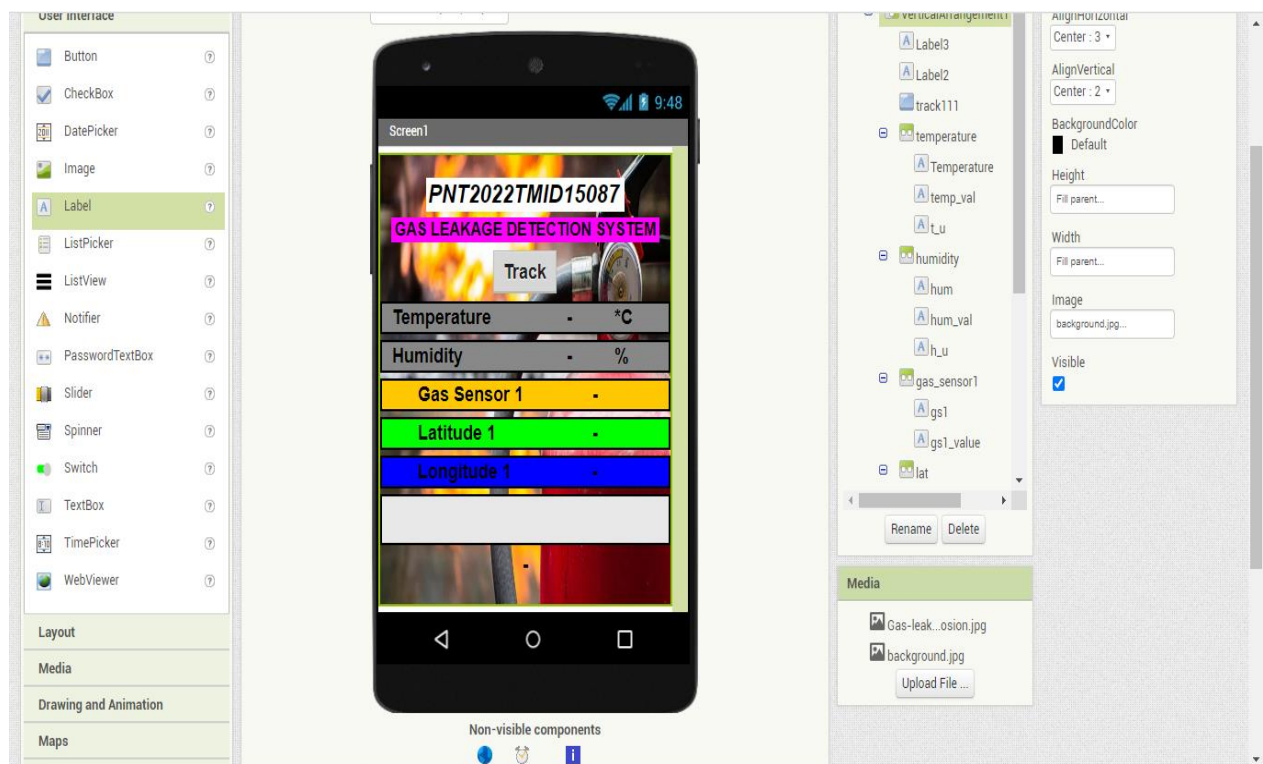
Node-Red Application





Android Application – MIT APP Inventor

Front-End



Back-End

The screenshot displays the Node-RED web interface in a browser. The top navigation bar includes links for Settings, Help, My Projects, View Trash, Guide, Report an Issue, and a language dropdown set to English. The user's email address, naveen2002karthick@gmail.com, is visible in the top right. Below the navigation bar, there are buttons for 'screen', 'Publish to Gallery', 'Designer', and 'Blocks'. The main workspace shows a flow with two primary components:

- Left Flow:** A 'when track111 .Click' trigger block followed by a 'do open another screen screenName trackwebsite' block.
- Right Flow:** A 'when Clock1 .Timer' trigger block followed by a 'do' loop. Inside the loop, a 'set (Web1 . Uri to https://node-red-gigb-2022-11-19.eu-gb.mybluemix...)' block is followed by a 'call (Web1 . Get)' block. This is followed by an 'if' block that checks 'get global alarm1' against the value '1'.
 - Then branch:** Sets 'warning1 . BackgroundColor' to red, sets 'warning1 . Text' to 'WARNING! GAS LEAKAGE DETECTED', and calls 'notify'.
 - Else branch:** Sets 'warning1 . Text' to 'NO LEAKAGE DETECTED' and sets 'warning1 . BackgroundColor' to green.

Below the 'if' block, there is a 'to notify' block followed by a 'do' loop. This loop calls 'Notify_v31 .Build' with the following configuration:

- icon: android R drawable ic_launcher
- color: cyan
- title: GAS DETECTION
- text: WARNING! GAS LEAKAGE DETECTED
- numberID: 1
- showWhen: true
- autoCancel: true
- startValue: Screen1

On the right side of the workspace, there are three circular icons: a target icon, a plus icon, and a minus icon. A small black trash can icon is also visible at the bottom right of the workspace.