SPRINT 4

UI/UX optimization and debugging

Team ID	PNT2022TMID52810
Project Name	Project - Signs with smart connectivity for Better road safety

Make the system more effective by optimizing the hardware and software based on the accuracy and precision of the observed output.

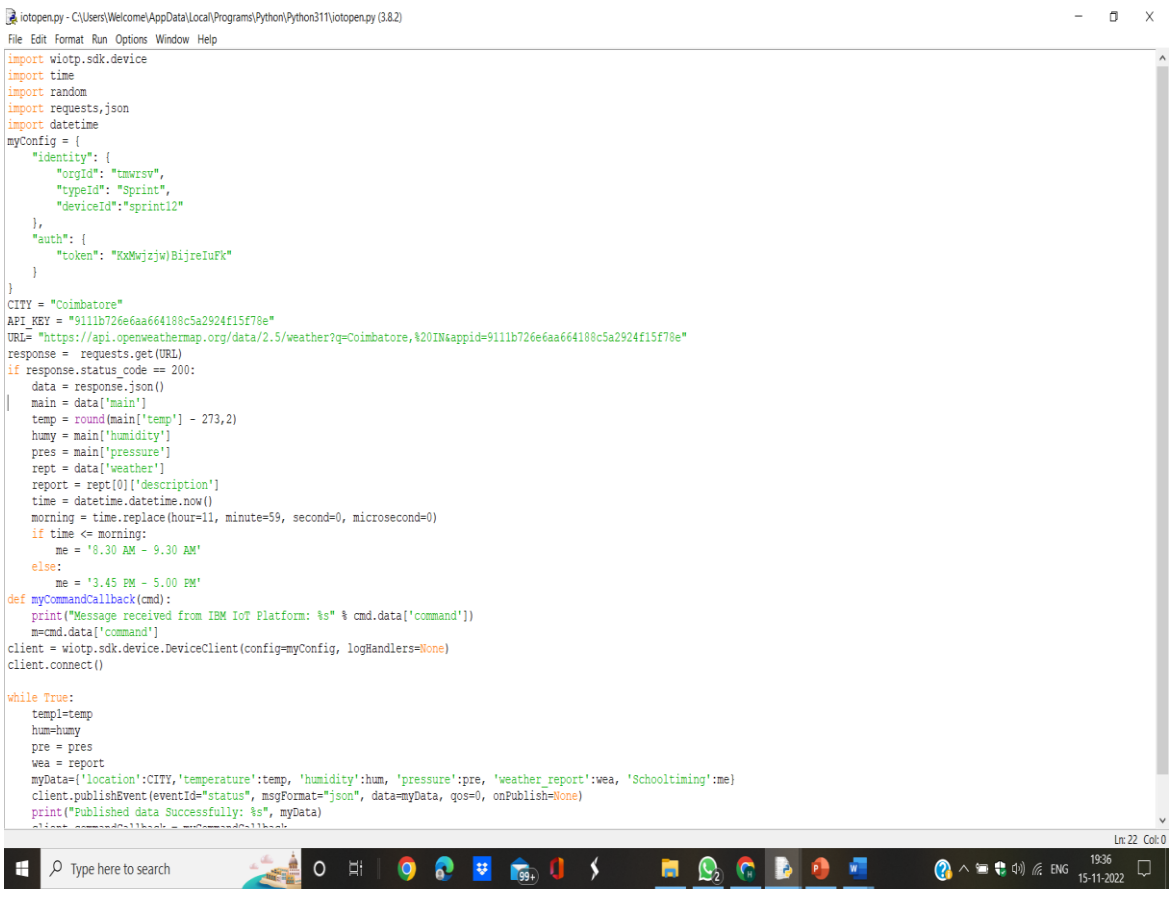
PYTHON SCRIPT:

```
import wiotp.sdk.device
import time
import random
import requests,json
import datetime
myConfig = {
   "identity": {
      "orgId": "tmwrsv",
      "typeId": "Sprint",
      "deviceId":"sprint12"
   },
   "auth": {
      "token": "KxMwjzjw)BijreIuFk"
   }
}
CITY = "Coimbatore"
API_KEY = "9111b726e6aa664188c5a2924f15f78e"
URL=
"https://api.openweathermap.org/data/2.5/weather?q=Coimbatore,%20IN&appid=9111
b726e6aa664188c5a2924f15f78e"
response =  requests.get(URL)
if response.status_code == 200:
   data = response.json()
   main = data['main']
   temp = round(main['temp'] - 273,2)
   humy = main['humidity']
   pres = main['pressure']
   rept = data['weather']
   report = rept[0]['description']
   time = datetime.datetime.now()
   morning = time.replace(hour=11, minute=59, second=0, microsecond=0)
   if time <= morning:
      me = '8.30 AM - 9.30 AM'
   else:
      me = '3.45 PM - 5.00 PM'
```

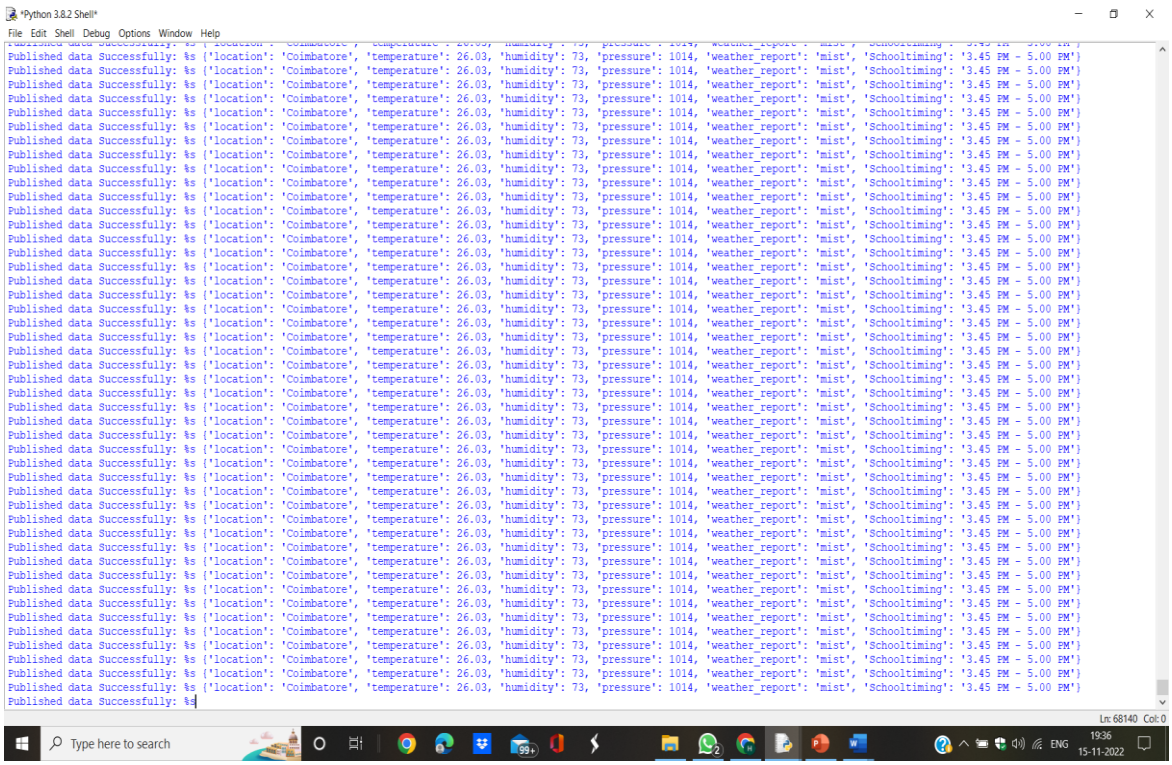
```
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    temp1=temp
    hum=humy
    pre = pres
    wea = report
    myData={'location':CITY,'temperature':temp, 'humidity':hum, 'pressure':pre,
'weather_report':wea, 'Schooltiming':me}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
client.disconnect()
```

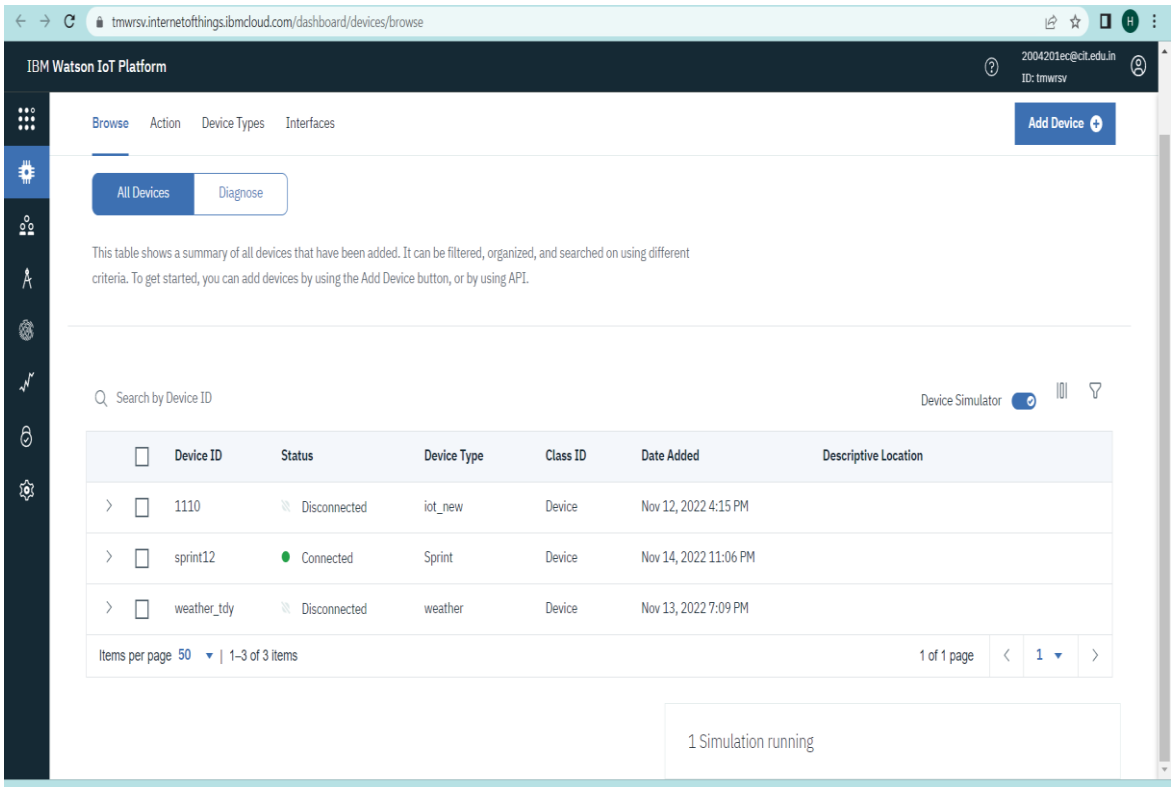
PYTHON IDE:

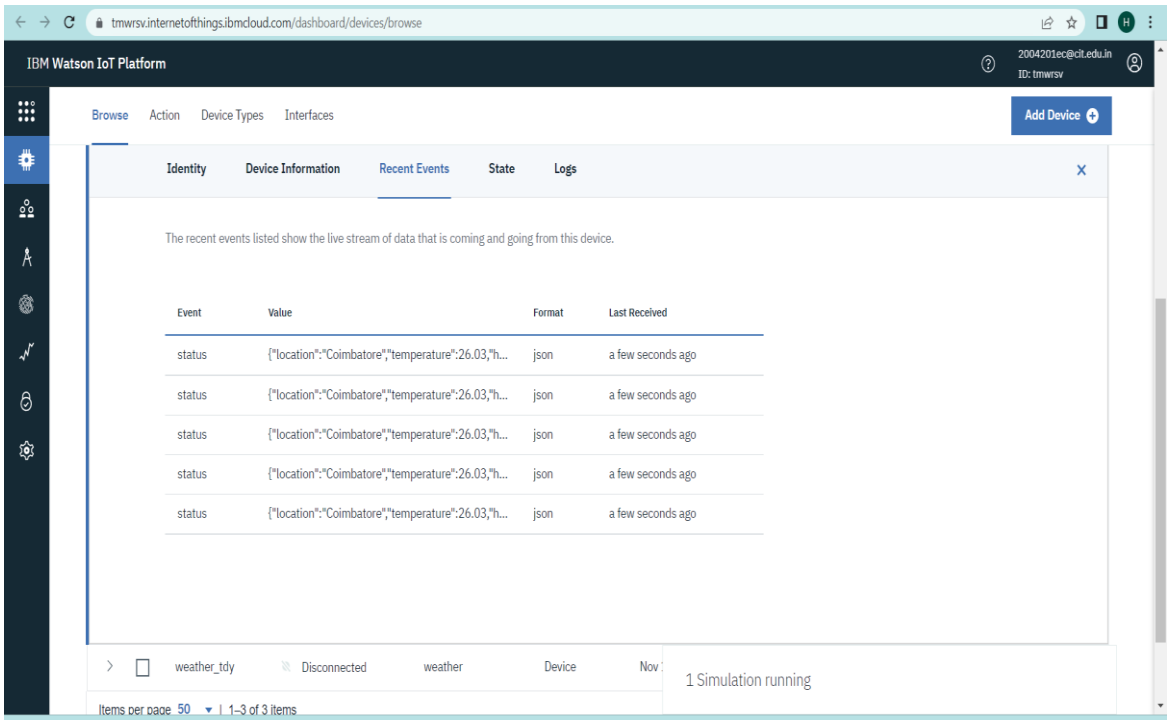


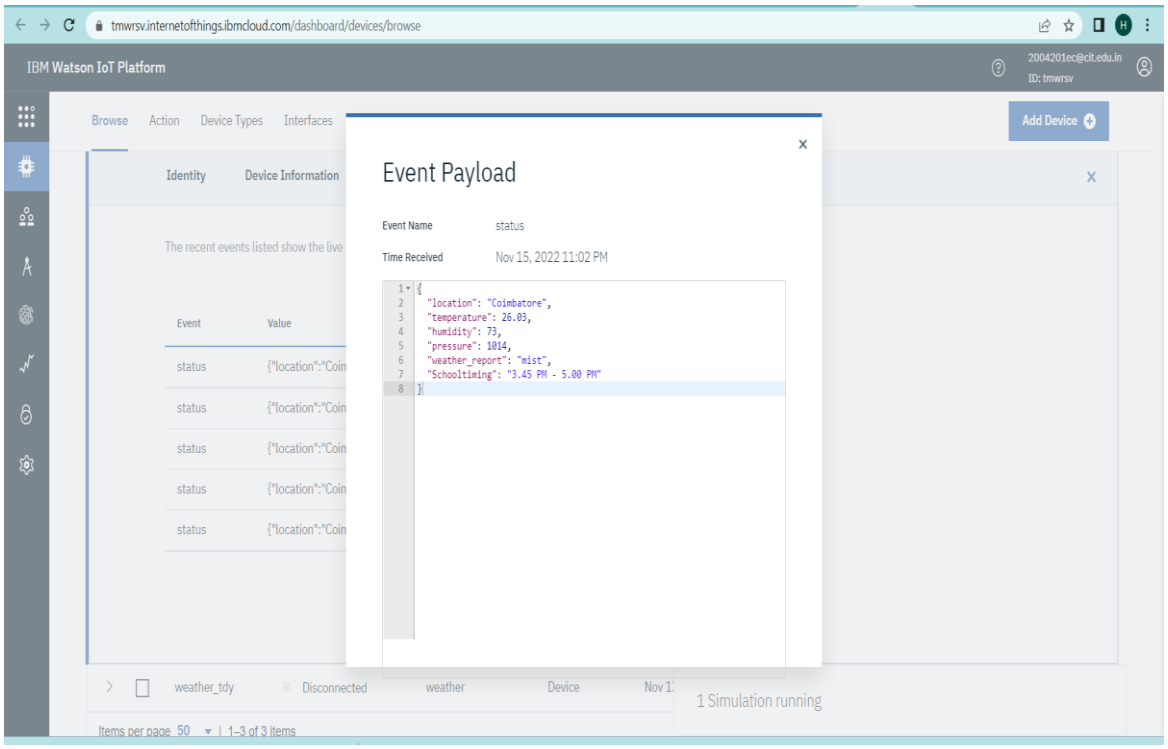
PYTHON IDE OUTPUT:



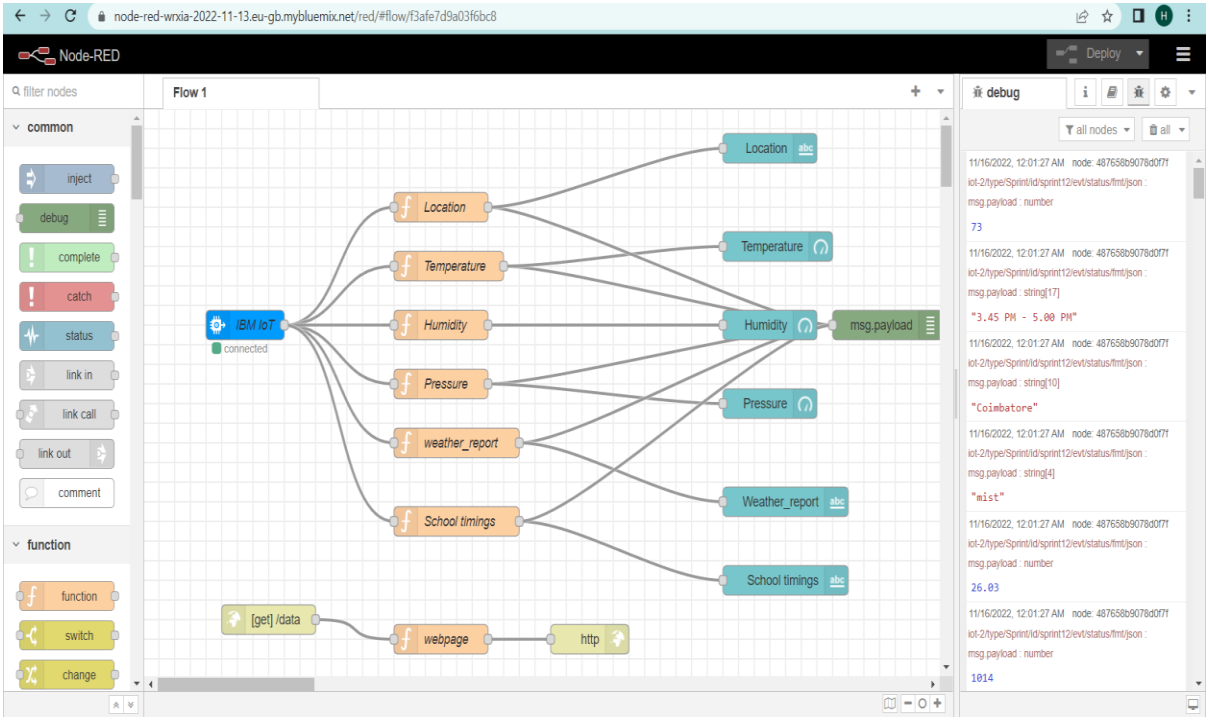
IBM WATSON IOT PLATFORM OUTPUT:

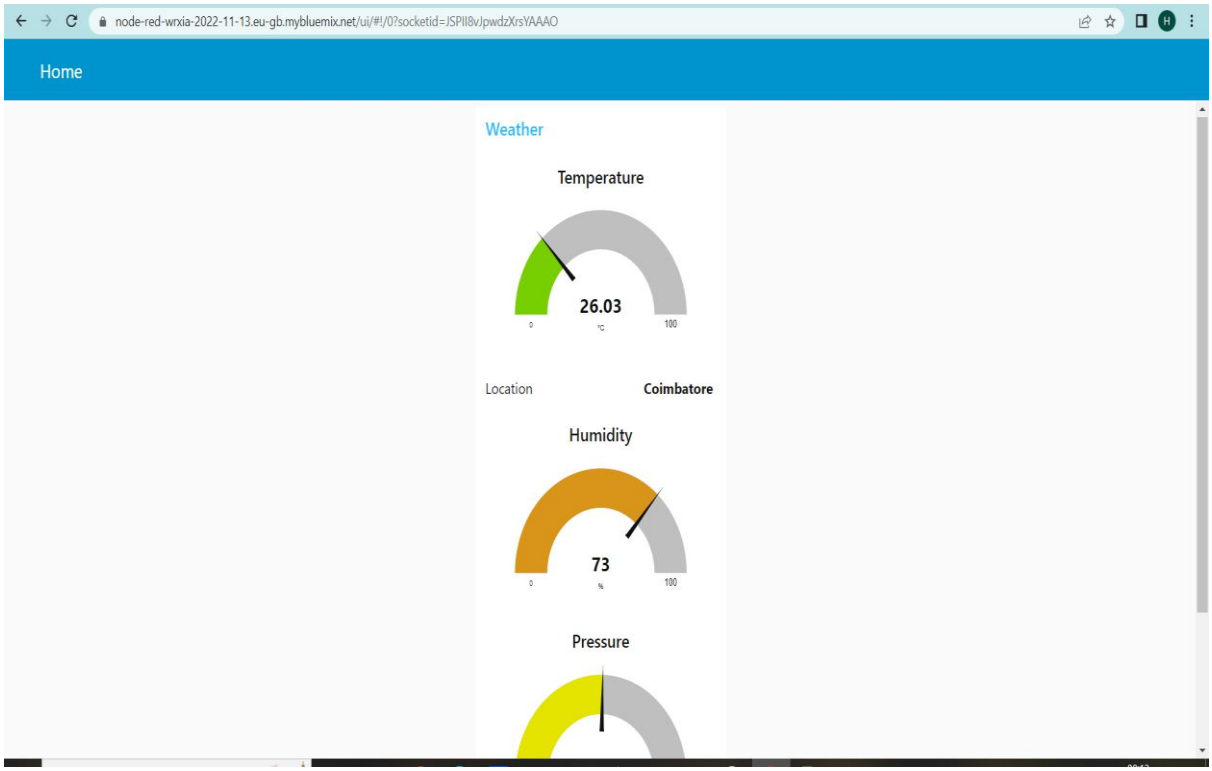


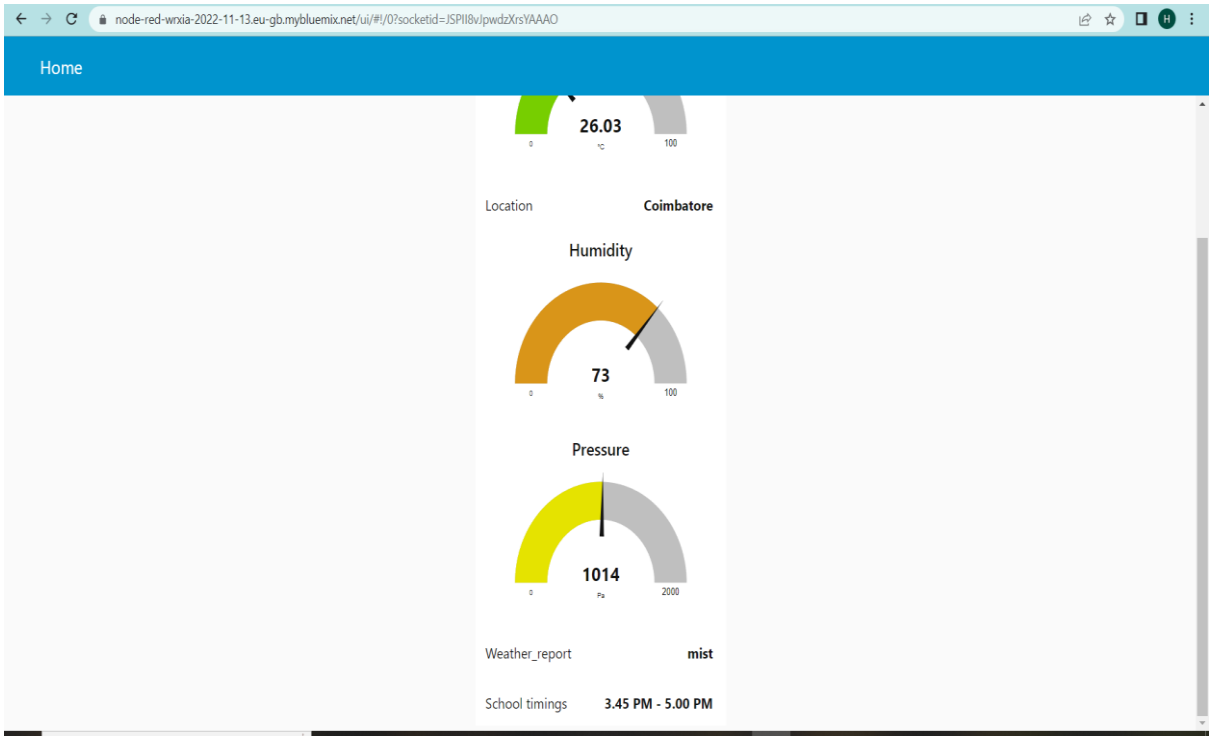

tmwrsv.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
2004201ec@cit.edu.in
ID: tmwrsv
Browse
Action
Device Types
Interfaces
Add Device
Identity
Device Information
Recent Events
State
Logs
The recent events listed show the live stream of data that is coming and going from this device.
Event
Value
Format
Last Received
status
{"location":"Coimbatore","temperature":26.03,"h...
json
a few seconds ago
weather_tdy
Disconnected
weather
Device
1 Simulation running
Items per page 50
1–3 of 3 items

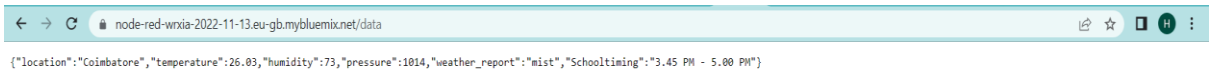

tmwrsv.internetofthings.ibmcloud.com/dashboard/devices/browse
IBM Watson IoT Platform
2004201ec@cit.edu.in
ID: tmwrsv
Browse
Action
Device Types
Interfaces
Add Device
Identity
Device Information
Event Payload
Event Name
status
Time Received
Nov 15, 2022 11:02 PM
{
"location": "Coimbatore",
"temperature": 26.03,
"humidity": 73,
"pressure": 1014,
"weather_report": "mist",
"Schooltiming": "3.45 PM - 5.00 PM"
}
weather_tdy
Disconnected
weather
Device
1 Simulation running
Items per page 50
1–3 of 3 items

WEB APPLICATION USING NODE-RED SERVICE:





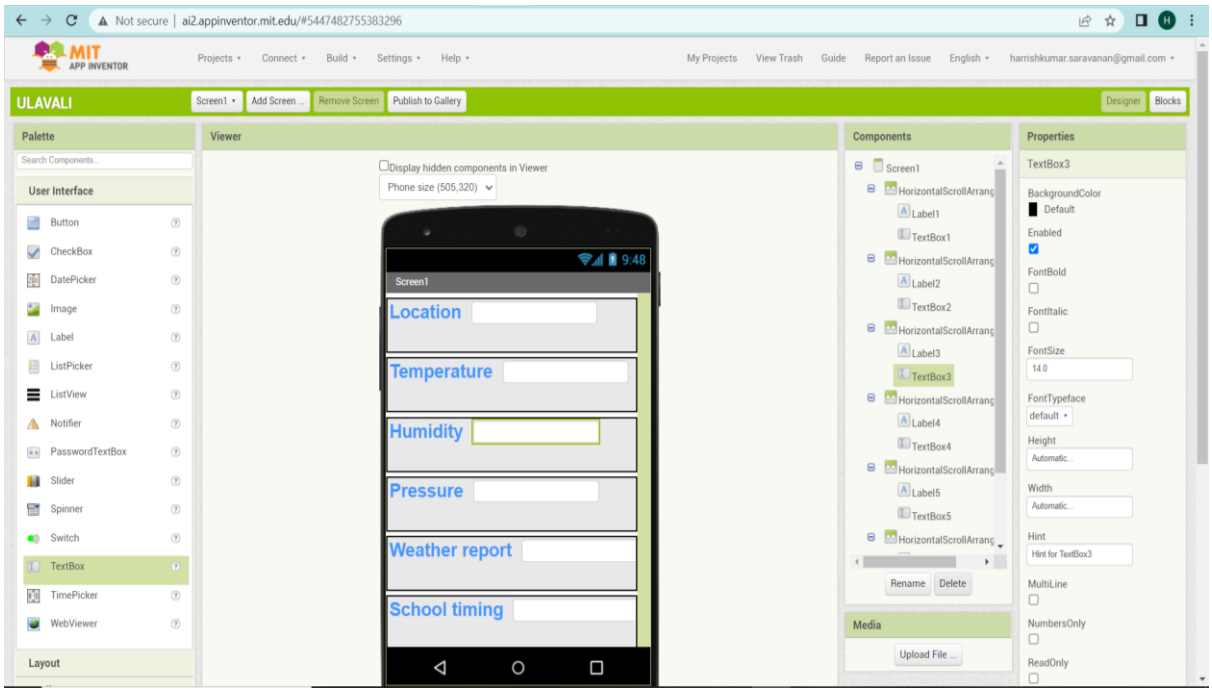


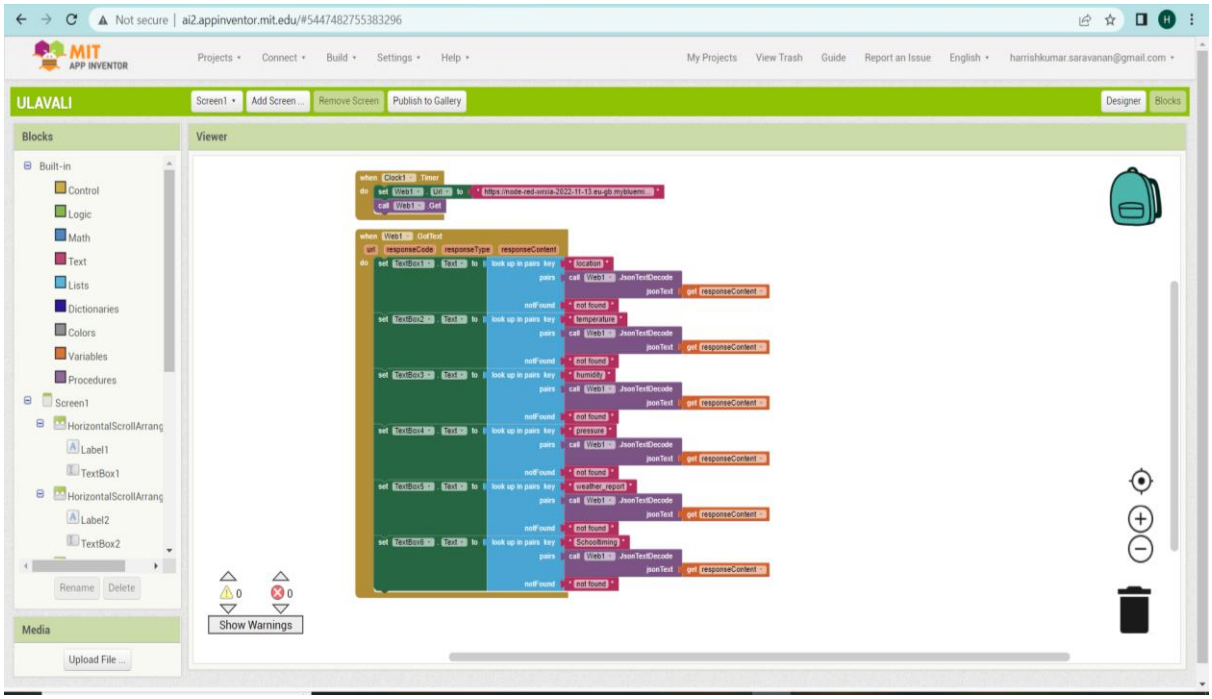


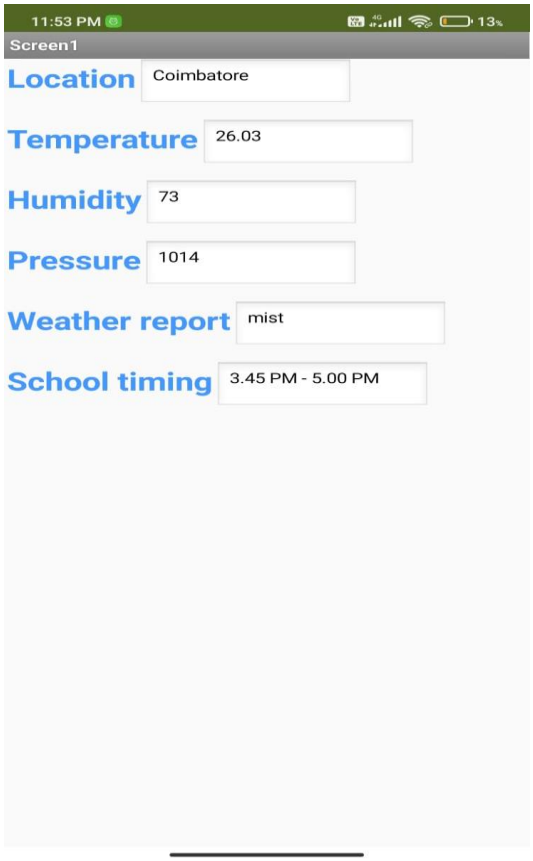
{"location":"Coimbatore","temperature":26.03,"humidity":73,"pressure":1014,"weather_report":"mist","Schooltiming":"3.45 PM - 5.00 PM"}

MIT APP INVENTOR:

To make it user friendly, easily accessible, etc..,.






11:53 PM
13%
Screen1
Location
Coimbatore
Temperature
26.03
Humidity
73
Pressure
1014
Weather report
mist
School timing
3.45 PM - 5.00 PM