SPRINT-3

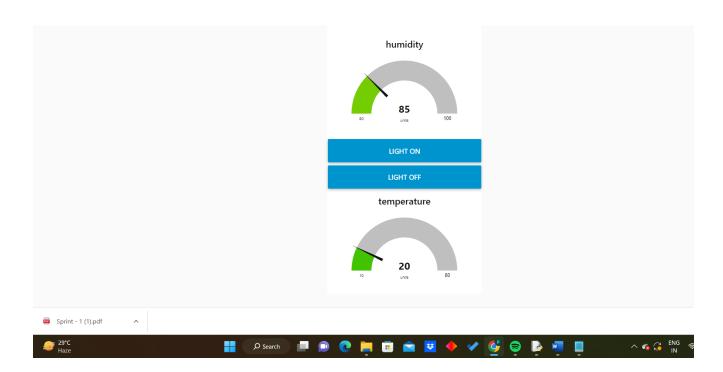| Team ID	PNT2022TMID02630
Project Name	Hazardous Area Monitoring for industrial Plant powered by IoT

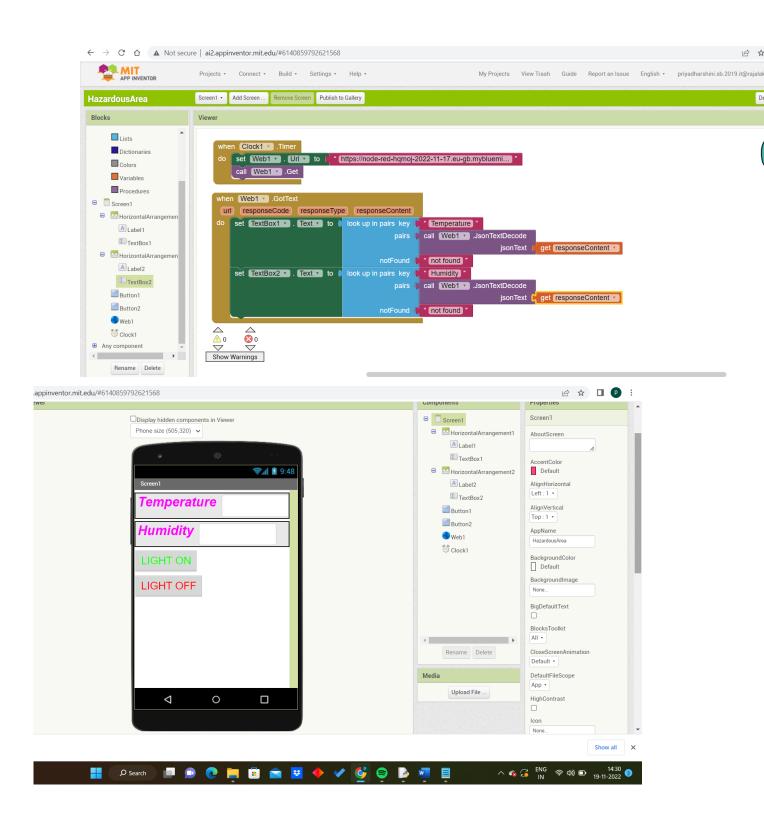# Python code for the Temperature Alert and Humidity check

```
import time import sys

import ibmiotf.application

import ibmiotf.device import

random

# Initialize GPIO

#Provide your IBM Watson Device

Credentials organization = "ID3lhmfj"

deviceType = "efgh"

deviceId = " 56789"

 authMethod = "use-token-auth"

authToken = "123456789"

def myCommandCallback(cmd):

print("Command received: %s" %

cmd.data['command'])

Status=cmd.data['command']

if Status=="Alert": print("Alert")

#print(cmd)

try:

deviceOptions = {"org": organization, "type": deviceType, "id": deviceId,
    "auth-method": authMethod, "auth-token": authToken}
deviceCli = ibmiotf.device.Client(deviceOptions)

#...........................................
    except Exception as e:

print("Caught exception connecting device: %s" % str(e)) sys.exit()
```

```python
# Connect and send a datapoint "hello" with value "world" into the cloud as an event of type
"greeting" 10 times

deviceCli.connect()

while True:

#Get Sensor Data from DHT11

temp =random.randint(0,100)

humid =random.randint(0,100)

oxygen =random.randint(0,100)


data = { 'temp' : temp, 'humidity': humid ,'oxygen': oxygen} data1 = {

'High temperature' : temp>60}

#print data

Def

myOnPublishCallback():

print ("Published Temperature = %s C" % temp, "humidity = %s %%" % humid,"alert", "to IBM
Watson")
success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,
on_publish=myOnPublishCallback)


  if not success:

  print("Not connected to IoTF")

  time.sleep(1)

  deviceCli.commandCallback =

  myCommandCallback


# Disconnect the device and application from the cloud

deviceCli.disconnect()
```
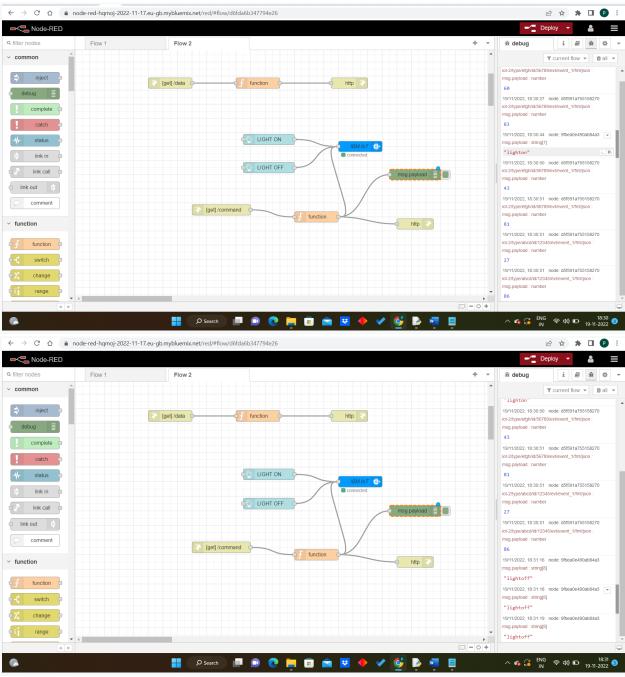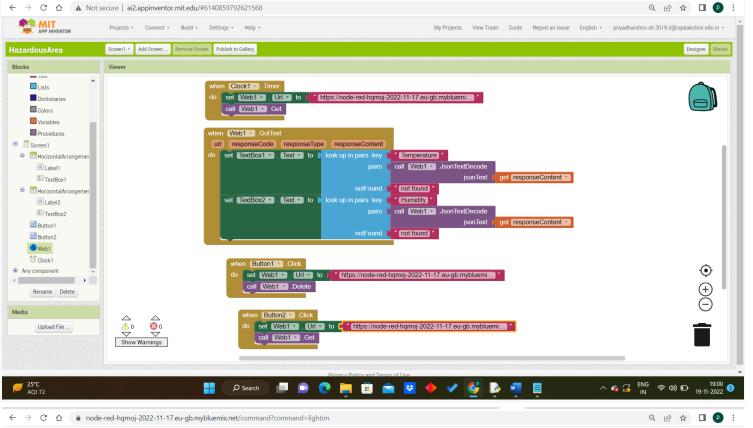
UI Dashboard

humidity

85
units

80   100

LIGHT ON

LIGHT OFF

temperature

20
units

10   80

Design the application for the project using MIT App Inventor

LIGHT ON AND LIGHT OFF COMMAND

node-red-hqmoj-2022-11-17.eu-gb.mybluemix.net/command?command=lighton

lighton

lightoff