

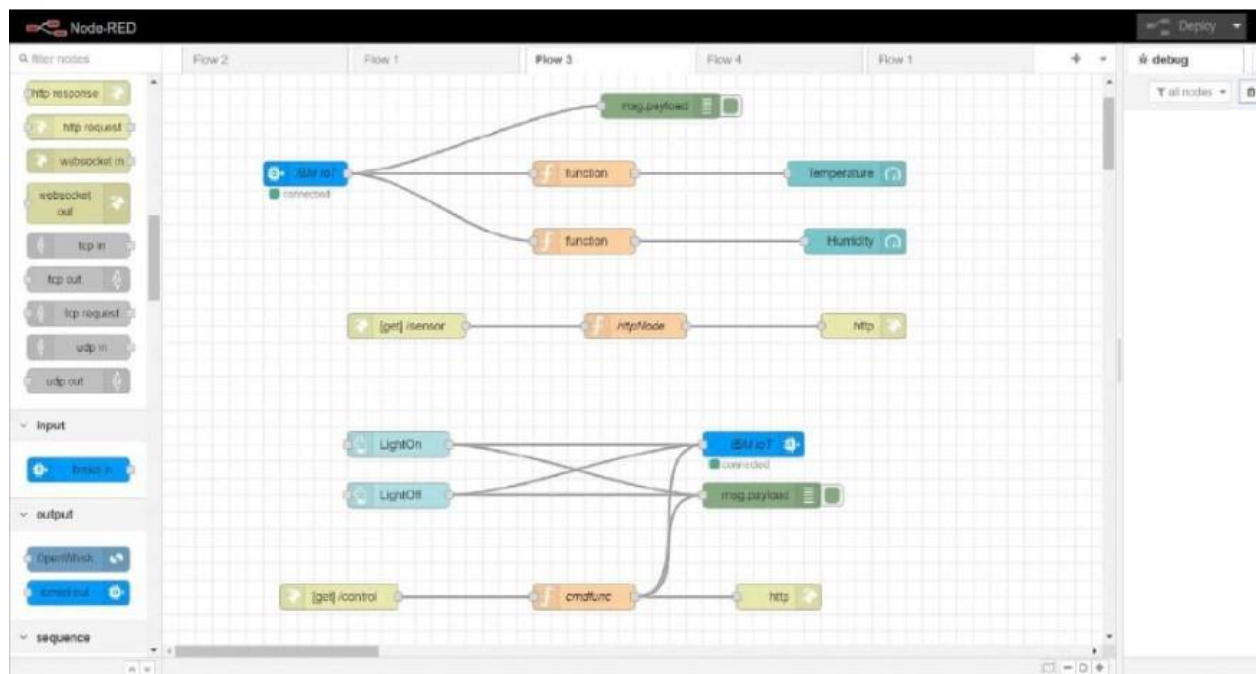
SPRINT-3

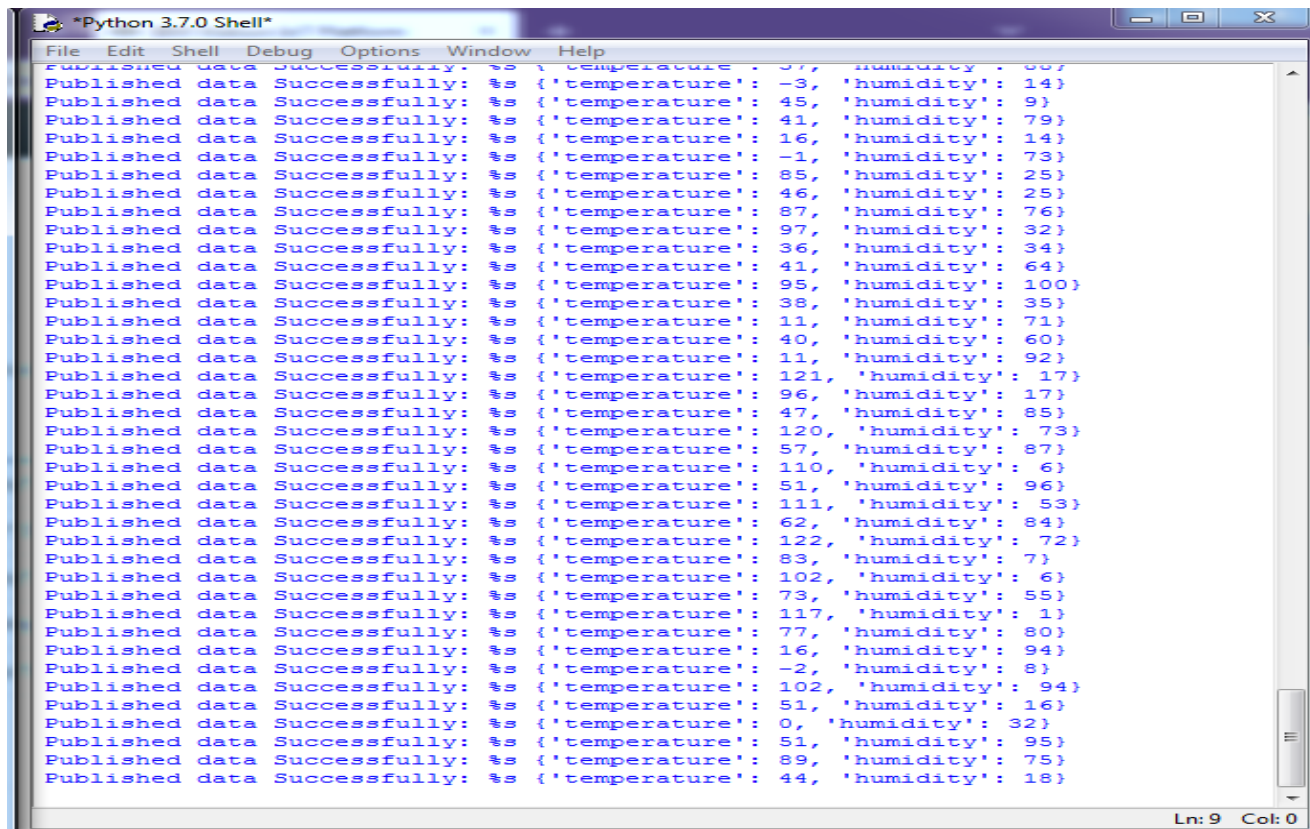
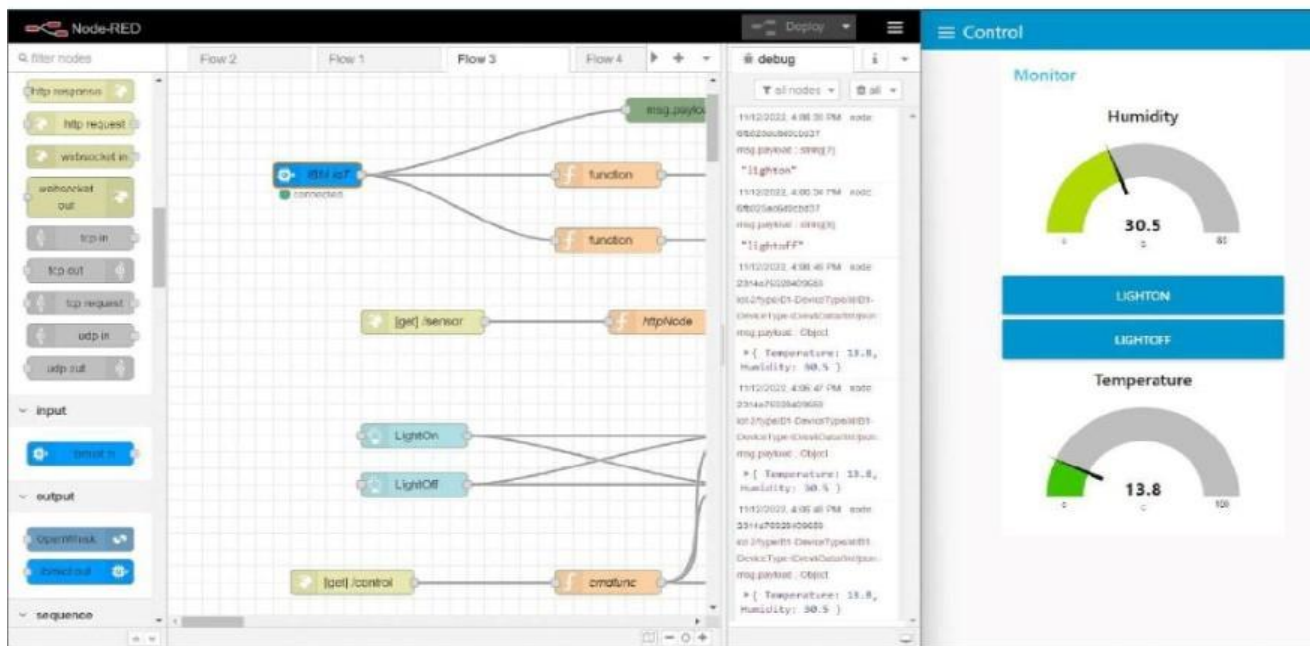
Date	18 November 2022
Team ID	PNT2022TMID40922
Project Name	Hazardous area monitoring for Industrial power plants using IoT.

MIT Application Inventor

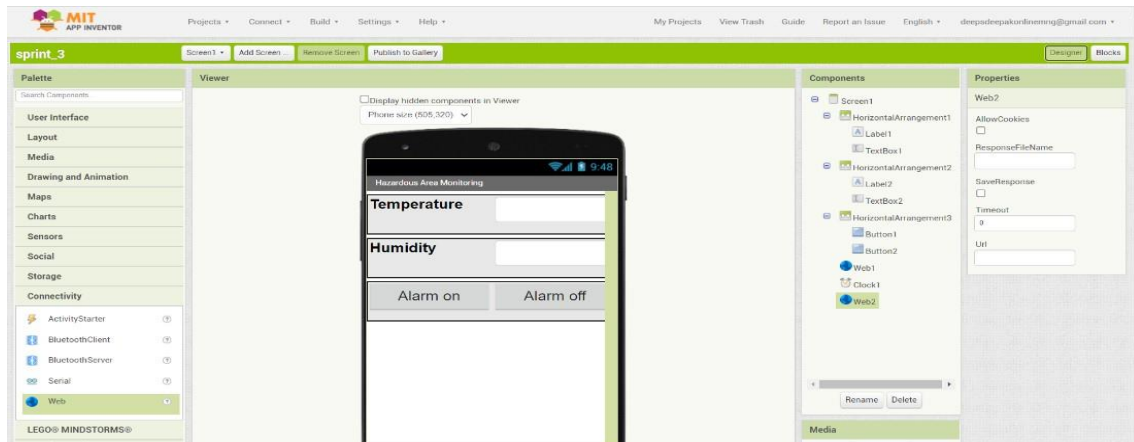
Building an application for our project using MIT application, designing the model and testing the application.

Connecting required nodes in the Node-red platform.





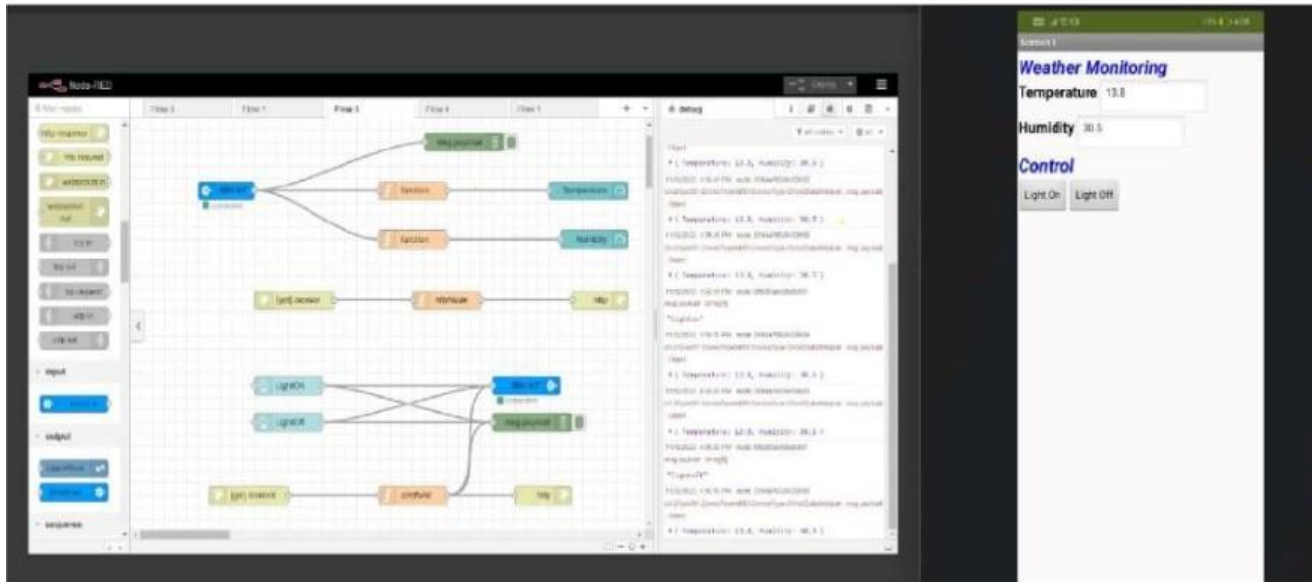
Connecting with the MIT Application Inventor to display temperature, humidity and alarm condition.



Attaching web link with the connected blocks in the MIT application inventor



Detecting high temperature and displaying “ALERT” message in the MIT application.



```
Code.py - C:/Users/User/AppData/Local/Programs/Python/Python37-32/Code.py (3.7.0)
Python 3.7.0 Shell

#IBM Watson IoT Platform
#pip install wiotsdk
import wiotsdk.device
import time
import random

myConfig = {"identity":
{
"orgId": "aqubz",
"typeId": "NodeMCU",
"deviceId": "12345" },
"auth": { "token": "EON8Q6-UN@GTJzH-Q" }
}

def myCommandCallback(cmd):
print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
m=cmd.data['command']

client = wiotsdk.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=None)
print("Published data Successfully: %s", myData)
client.commandCallback = myCommandCallback
time.sleep(2)
client.disconnect()
```

```
Python 3.7.0 Shell
Published data Successfully: %s ('temperature': 37, 'humidity': 60)
Published data Successfully: %s ('temperature': -3, 'humidity': 14)
Published data Successfully: %s ('temperature': 45, 'humidity': 9)
Published data Successfully: %s ('temperature': 41, 'humidity': 79)
Published data Successfully: %s ('temperature': 16, 'humidity': 14)
Published data Successfully: %s ('temperature': -1, 'humidity': 73)
Published data Successfully: %s ('temperature': 85, 'humidity': 25)
Published data Successfully: %s ('temperature': 46, 'humidity': 25)
Published data Successfully: %s ('temperature': 87, 'humidity': 76)
Published data Successfully: %s ('temperature': 97, 'humidity': 32)
Published data Successfully: %s ('temperature': 36, 'humidity': 34)
Published data Successfully: %s ('temperature': 41, 'humidity': 64)
Published data Successfully: %s ('temperature': 95, 'humidity': 100)
Published data Successfully: %s ('temperature': 38, 'humidity': 35)
Published data Successfully: %s ('temperature': 11, 'humidity': 71)
Published data Successfully: %s ('temperature': 40, 'humidity': 60)
Published data Successfully: %s ('temperature': 11, 'humidity': 92)
Published data Successfully: %s ('temperature': 121, 'humidity': 17)
Published data Successfully: %s ('temperature': 96, 'humidity': 17)
Published data Successfully: %s ('temperature': 47, 'humidity': 85)
Published data Successfully: %s ('temperature': 120, 'humidity': 73)
Published data Successfully: %s ('temperature': 57, 'humidity': 87)
Published data Successfully: %s ('temperature': 110, 'humidity': 6)
Published data Successfully: %s ('temperature': 51, 'humidity': 96)
Published data Successfully: %s ('temperature': 111, 'humidity': 53)
Published data Successfully: %s ('temperature': 62, 'humidity': 84)
Published data Successfully: %s ('temperature': 122, 'humidity': 72)
Published data Successfully: %s ('temperature': 83, 'humidity': 7)
Published data Successfully: %s ('temperature': 102, 'humidity': 6)
Published data Successfully: %s ('temperature': 73, 'humidity': 55)
Published data Successfully: %s ('temperature': 117, 'humidity': 1)
Published data Successfully: %s ('temperature': 77, 'humidity': 80)
Published data Successfully: %s ('temperature': 16, 'humidity': 94)
Published data Successfully: %s ('temperature': -2, 'humidity': 8)
Published data Successfully: %s ('temperature': 102, 'humidity': 94)
Published data Successfully: %s ('temperature': 51, 'humidity': 16)
Published data Successfully: %s ('temperature': 0, 'humidity': 32)
Published data Successfully: %s ('temperature': 51, 'humidity': 95)
Published data Successfully: %s ('temperature': 89, 'humidity': 75)
Published data Successfully: %s ('temperature': 44, 'humidity': 18)
```

Downloading apk file and building mobile applications using python script for sensing temperature for Hazardous area monitoring conditions in industrial areas.

Hazardous Area Monitoring

Temperature

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Humidity

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Alarm on

Alarm off