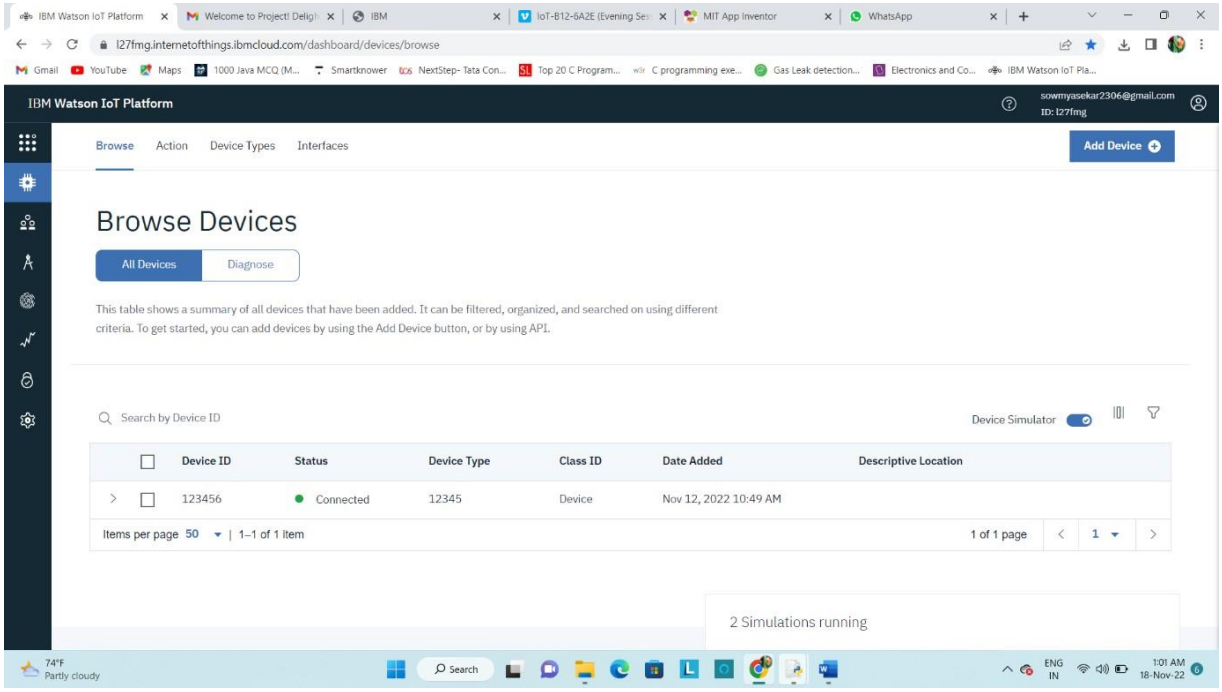
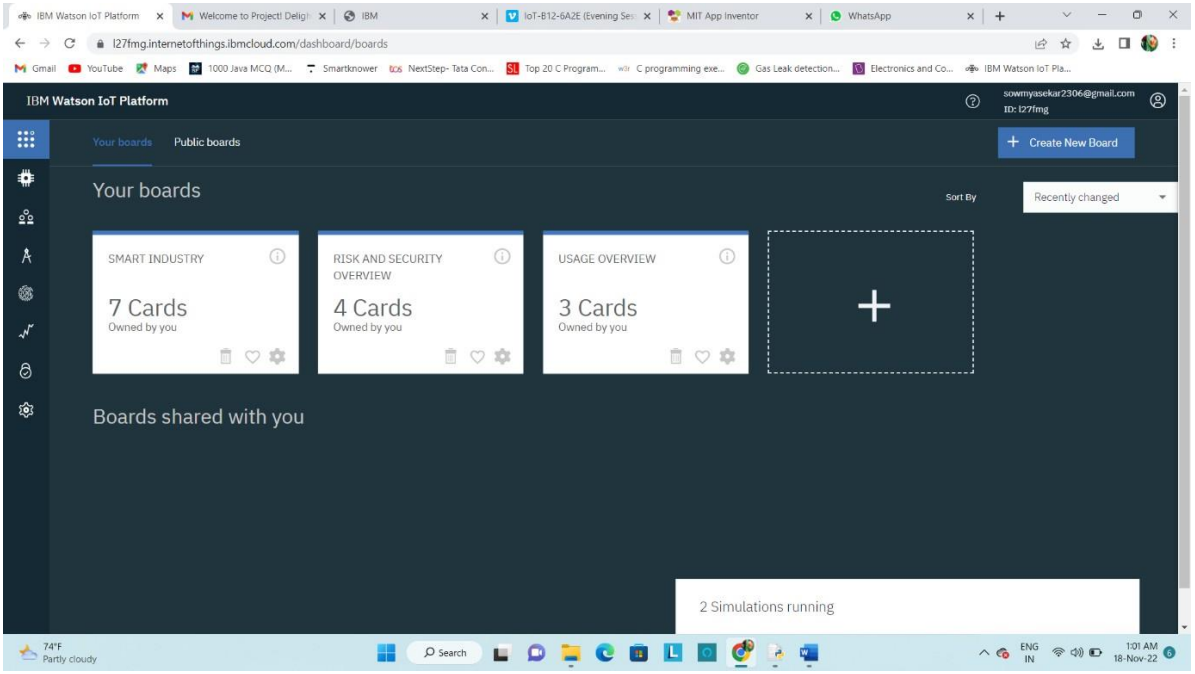
PROJECT DEVELOPMENT PHASE

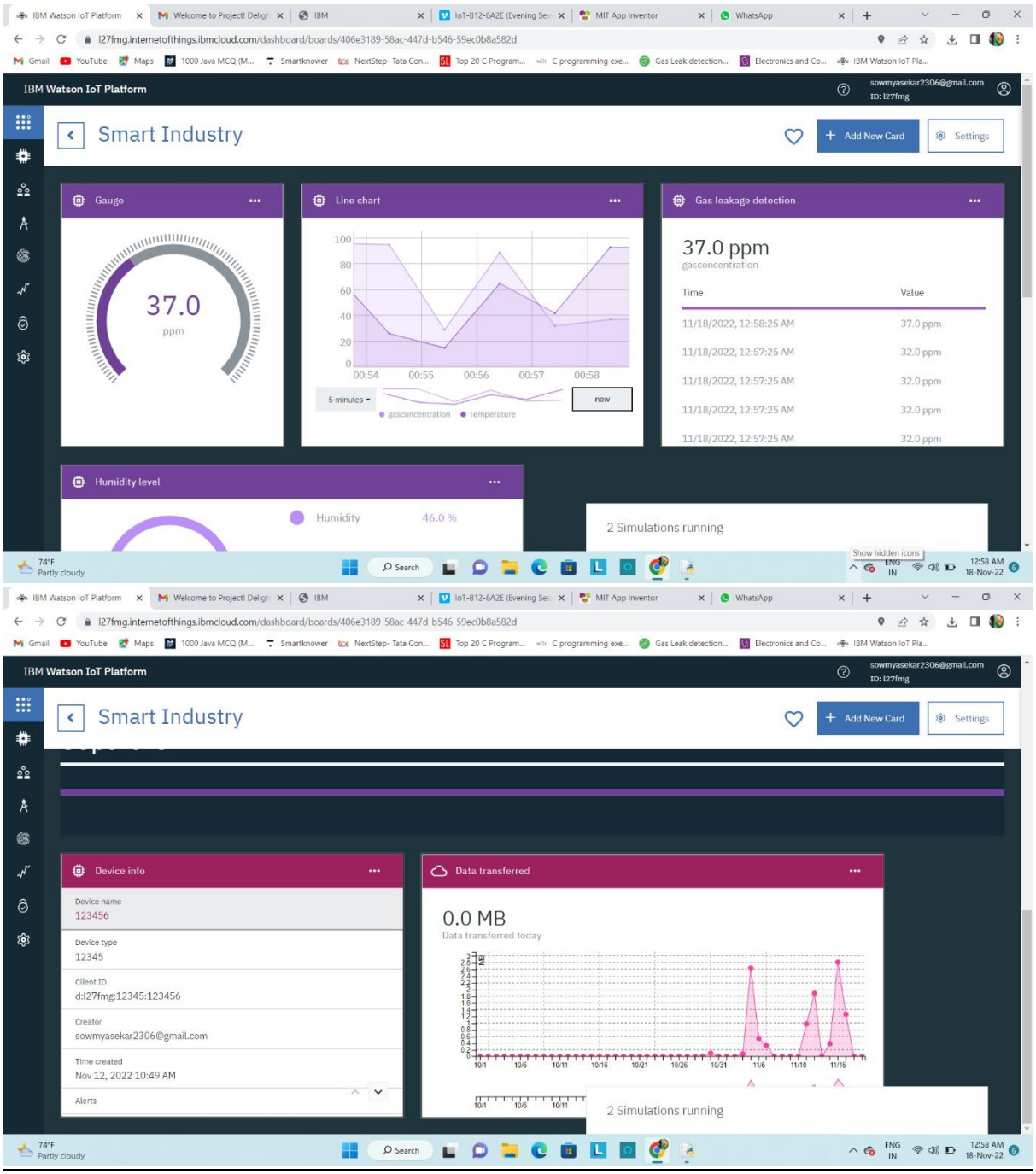
SPRINT 2

Date	18 November 2022
Team ID	PNT2022TMID53681
Project name	Gas Leakage Monitoring & Alerting System for Industries

IBM WATSON :







PYTHON CODE CONNECTED WITH WATSON :

```
import time

import sys

import ibmiotf.application

import ibmiotf.device

import random

organization = "l27fmg"
```

```
deviceType = "12345"

deviceId = "123456"

authMethod ="token"

authToken = "123456789"

def myCommandCallback(cmd):

   print("Command received: %s" % cmd.data['command'])

   status=cmd.data['command']

   if status=="alarmon":

      print ("Alarm is on")

   elif status =="alarmoff":

      print ("Alarm is off")

   else:

      print ("Please send proper command")

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()

deviceCli.connect()

while True:

      gasconcentration = random.randint(50,110)

      Humidity =random.randint(90,110)

      Temperature = random.randint(90,110)

      if gasconcentration>80:

         gas_status=" Hurry gas is leaking \n Alert!!!!!"
```

else:

gas_status="gas is not leaking"

data = {'gasconcentration' : gasconcentration,'Humidity' : Humidity,'Temperature' :Temperature,'gas_status':gas_status}

def myOnPublishCallback():

print(" GasConcentration = %s PPM" % gasconcentration, "to IBM Watson")

print(" Humidity = %s%%" % Humidity, "to IBM Watson")

print(" Temperature = %s C" % Temperature, "to IBM Watson")

print(gas_status)

success = deviceCli.publishEvent("IoTSensor", "json", data, qos=0,on_publish=myOnPublishCallback)

if not success:

print("Not connected to IoTF")

time.sleep(10)

deviceCli.commandCallback=myCommandCallback

deviceCli.disconnect()