# MAHENDRA ENGINEERING COLLEGE

# NAMAKKAL

**Signs with Smart Connectivity For Better Road Safety**

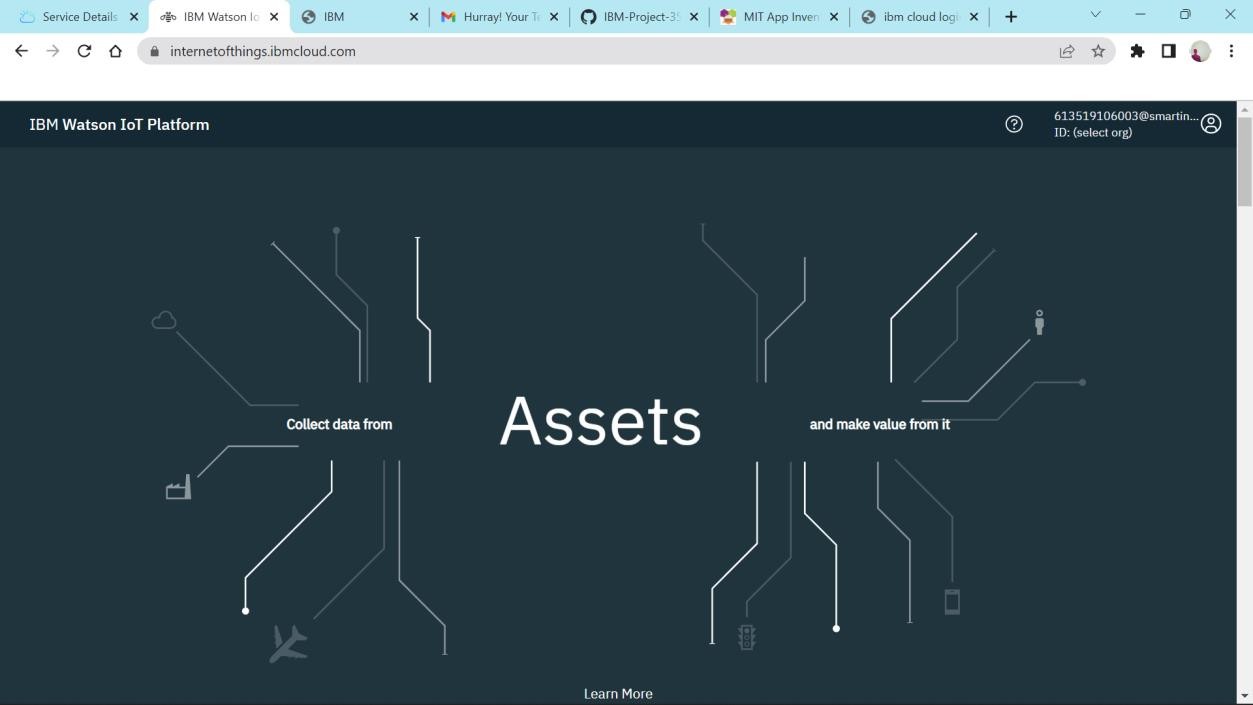
**IBM NALAIYATHIRAN**

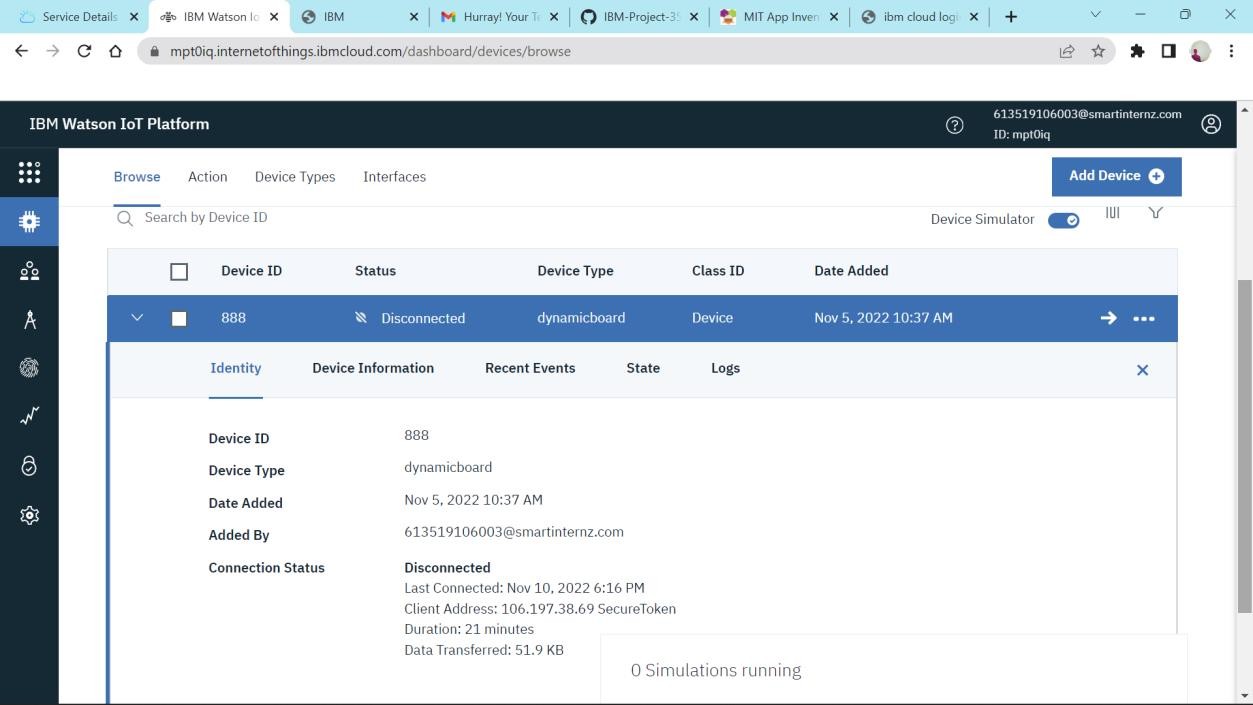
# Project Development – Delivery of sprint 1

**Creating And Connecting For Project And Python Code**

|  |  |
| --- | --- |
| **TITLE** | **Signs with Smart Connectivity for**  **Better Road Safety** |
| **DOMAIN NAME** | INTERNET OF THINGS |
| **TEAM ID** | PNT2022TMID17100 |
| **TEAM LEADERNAME** | SATHISHKUMAR V |
| **TEAM MEMBER NAME** | RANJITH R  PRAVEEN M  NAVEENRAJ V |
| **MENTOR NAME** | Dr.RAVIKUMAR |

CREATING IBM CLOUD DEVICE:





CREATING PYTHON CODE:

#IBM Watson IOT Platform #pip install wiotp-sdk import wiotp.sdk.device import time

import random myConfig = {

"identity": {

"orgId": "mpt0iq", "typeId": "dynamicboard", "deviceId":"888"

},

"auth": {

"token": "0987654321"

}

}

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: temperature=random.randint(-20,125) vehiclescount=random.randint(0,100) rest=random.randint(0,100)

hospital\_distance=random.randint(0,500)

schooltime=random.randint(1,24) a="Your Prefered Speed" b="Speed Limit is 30 km\hr" c="Take Diversion"

d="As Your Wish" x={'Condition\_for\_Speed':a} y={'Condition\_for\_Speed':b} k={'Condition\_for\_Speed\_limit\_School':a} l={'Condition\_for\_Speed\_limit\_School':b} z={'Condition\_for\_Direction':c} w={'Condition\_for\_Direction':d}

p="No Horn" q={'caution':p}

distance1={'Distance\_for\_Hospital':hospital\_distance} myData1={'Temperature':temperature} myData2={'Vehiclescount':vehiclescount} myData3={'Restaurant\_distance': rest} myData5={'Hospital\_distance':hospital\_distance} myData4={'Schooltime':schooltime}

client.publishEvent(eventId="status",msgFormat="json",data=myData1,qos=0,onPublish=None) print("Published:%s",myData1)

if temperature>=20:

client.publishEvent(eventId="status", msgFormat="json",data=x,qos=0,onPublish=None) print(x)

print("\n") else :

client.publishEvent(eventId="status", msgFormat="json",data=y,qos=0,onPublish=None) print(y)

print("\n")

client.publishEvent(eventId="status",msgFormat="json",data=myData2,qos=0,onPublish=None) print("Published:%s",myData2)

if vehiclescount>=50: client.publishEvent(eventId="status",msgFormat="json",data=z,qos=0,onPublish=None) print(z)

print("\n") else:

client.publishEvent(eventId="status",msgFormat="json",data=w,qos=0,onPublish=None) print(w)

print("\n")

client.publishEvent(eventId="status",msgFormat="json",data=myData4,qos=0,onPublish=None) print("Published:%s",myData4)

if 8<=schooltime and schooltime<=10 or 15<=schooltime and schooltime<=18: client.publishEvent(eventId="status",msgFormat="json",data=l,qos=0,onPublish=None) print(l)

print("\n")

else :

client.publishEvent(eventId="status",msgFormat="json",data=k,qos=0,onPublish=None) print(k)

print("\n")

client.publishEvent(eventId="status",msgFormat="json",data=myData5,qos=0,onPublish=None)

if 0<=hospital\_distance and hospital\_distance<=200: client.publishEvent(eventId="status",msgFormat="json",data=distance1,qos=0,onPublish=None) print(distance1) client.publishEvent(eventId="status",msgFormat="json",data=q,qos=0,onPublish=None)

print(q) print("\n")

else:

print(x) print("\n")

client.publishEvent(eventId="status",msgFormat="json",data=myData3,qos=0,onPublish=None) print("Published:%s",myData3)

client.commandCallback=myCommandCallback time.sleep(20)

client.disconnect()

CONNECTING IBM WATSON AND PYTHON CODE:

