Project Development Phase
Sprint - 1

Team ID	PNT2022TMID24190
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

Data Generation:

Using random function in python, the required sensor data have been generated and published to IBM Watson IoT Platform.

Python Source Code:

```
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

# Provide your IBM Watson Device Credentials
organization = "c1n0yk"
deviceType = "Hazard"
deviceId = "2"
authMethod = "token"
authToken = "123456789"

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

except ibmiotf.ConnectionException as e:
    print("Caught exception connecting device: %s" % str(e))
```

```
    sys.exit()

while True:
    # Get Sensor Data from DHT11

    temp = random.randint(0, 100)

    mydata = {'temp': temp}

    def on_publish():
        print("Published Temperature = %s C" % temp, "to IBM Watson")



    success = deviceCli.publishEvent("Temp sensor", "json", mydata, qos=0,
on_publish=on_publish)
    if not success:
        print("Not connected to IoTF")
    time.sleep(2)

# Disconnect the device and application from the cloud
deviceCli.disconnect()
```