Project Development Phase
Sprint – 3

Team ID	PNT2022TMID49366
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Project Name	Hazardous Area Monitoring for Industrial Plant Powered by IoT

Program:

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

organization="pyflre"
deviceType="hazard"
deviceId="231099"
authMethod="token"
authToken="zHP+8fjUb*HmxvADd8"

def myCommandCallback(cmd):
print("Command received:%s" % cmd.data['command'])
status=cmd.data['command']
if status=="motoron":
print("Motor is ON")
else:
print("Motor is OFF")


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

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

deviceCli.connect()


while True:

temp=random.randint(0,100)
noise=random.randint(0,100)
Gas=random.randint(0,100)
radn=random.randint(0,100)
data={'Temperature'
:temp,'Noise':noise,'Gas_leakage':Gas,'Radiation':radn}


def myOnPublishCallback():
print("Published Temperature=%s C" %temp,"Noise:%s db"
%noise,"Gas_leakage:%s J/Kg" %Gas,"Radiation:%s rad "%radn,"to
IBM Watson")


success=deviceCli.publishEvent("IoTSensor","json",data,qos=0,on_publi
sh=myOnPublishCallback)
if not success:
print("Not connected to IoTF")
time.sleep(1)


deviceCli.commandCallback=myCommandCallback

deviceCli.disconnect()
```

Output: