**Project Development Phase**

**Sprint - 1**

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| Date | 1 November 2022 |
| Team ID | PNT2022TMID54029 |
| Project Name | Hazardous Area Monitoring for Industrial Plant powered by IoT |
| Maximum Marks |  |

**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()

**Output:**

