**Project Development Phase**

**Sprint - 1**

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| Team ID | PNT2022TMID50270 |
| 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, "authmethod": 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:**

