Sprint – 1

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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 IBM Watson Device Credentials
organization = "u7bs6g"
deviceType = "GasSensor"
deviceId = "121"
authMethod = "token"
authToken = "987654321"


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:
        temp = random.randint(0, 100)
        hum = random.randint(0, 100)
        gas = random.randint(0, 100)

        mydata = {'temp': temp, 'hum': hum, 'gas': gas}

        def on_publish():
            print("Published Temperature = %s C" % temp, "Humidity = %s %%" %
hum, "Gas Concentration = %s" % gas, "to IBM Watson")
            success = deviceCli.publishEvent("IOTGasSensor", "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: