Project Deveopment Phase
Sprint 1

Date	15 October 2022
Team ID	PNT2022TMID54458
Project Name	Hazardous Area Monitoring for Industrial Plant powered by IoT

In this sprint, we are getting temperature and heart beat as input from the python program which is consider to get the input from the workers through beacon scanners.

Solution:

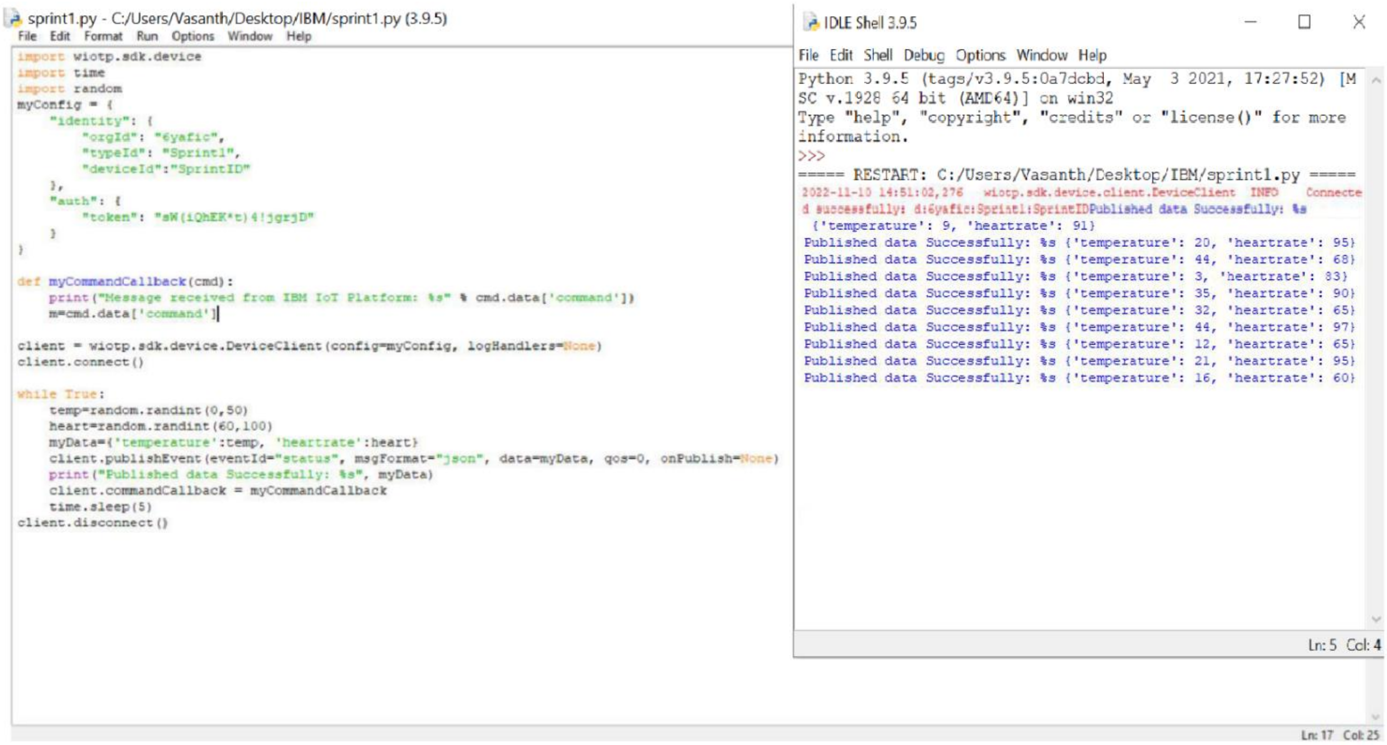
```
import wiotp.sdk.device
import time
import random
myConfig = {
  "identity": {
    "orgId": "6yafic",
    "typeId": "Sprint1",
    "deviceId":"SprintID"
  },
  "auth": {
    "token": "sW(iQhEK*t)4!jgrjD"
  }
}

def myCommandCallback(cmd):
  print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
  m=cmd.data['command']

client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
  temp=random.randint(0,50)
  heart=random.randint(60,100)
  myData={'temperature':temp, 'heartrate':heart}
  client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
  print("Published data Successfully: %s", myData)
  client.commandCallback = myCommandCallback
  time.sleep(2)
client.disconnect()
```

Data gathering from beacon scanner (using python)


sprint1.py - C:/Users/Vasanth/Desktop/IBM/sprint1.py (3.9.5)
File Edit Format Run Options Window Help
IDLE Shell 3.9.5
File Edit Shell Debug Options Window Help
Ln: 5 Col: 4
Ln: 17 Col: 25

```python
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId": "6yafic",
        "typeId": "Sprint1",
        "deviceId":"SprintID"
    },
    "auth": {
        "token": "sW(iQhEK*t)4!jgrjD"
    }
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def myCommandCallback(cmd):
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client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)
client.connect()

while True:
    temp=random.randint(0,50)
    heart=random.randint(60,100)
    myData={'temperature':temp, 'heartrate':heart}
    client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0, onPublish=None)
    print("Published data Successfully: %s", myData)
    client.commandCallback = myCommandCallback
    time.sleep(5)
client.disconnect()
```
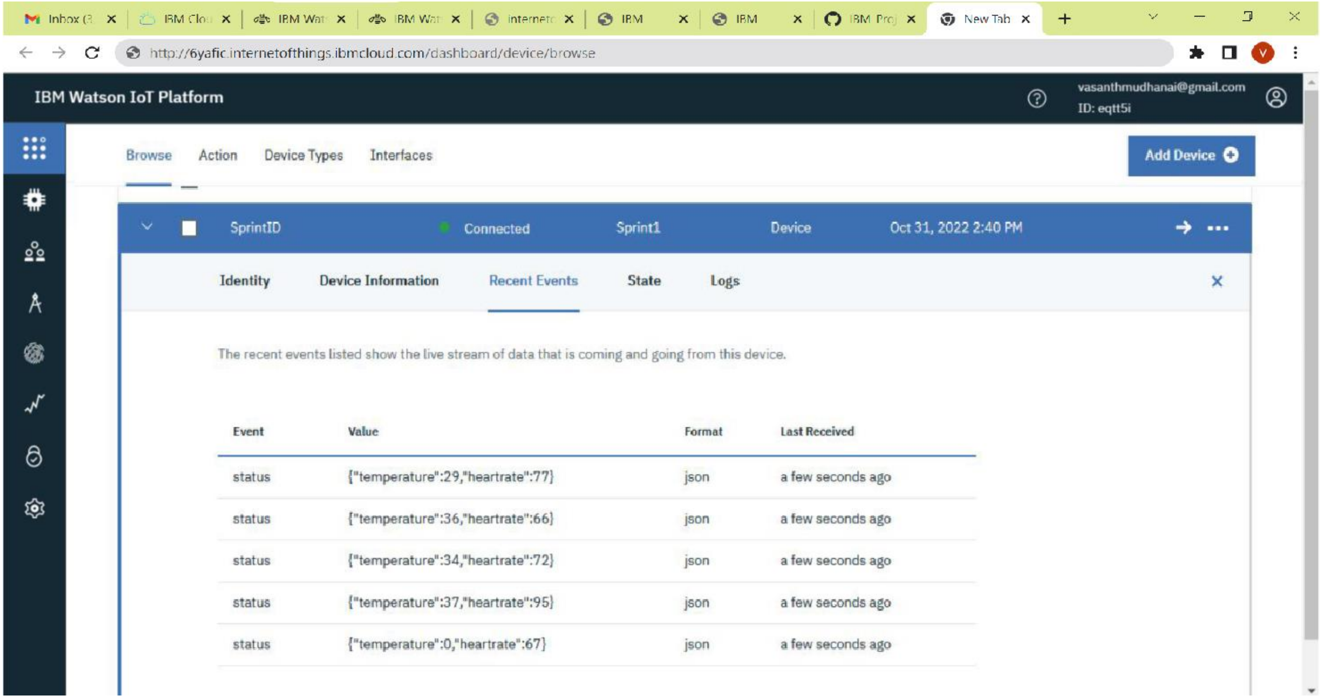

```
Python 3.9.5 (tags/v3.9.5:0a7dcbd, May  3 2021, 17:27:52) [M
SC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more
information.
>>>
===== RESTART: C:/Users/Vasanth/Desktop/IBM/sprint1.py =====
2022-11-10 14:51:02,276   wiotp.sdk.device.client.DeviceClient  INFO    Connecte
d successfully: d:6yafic:Sprint1:SprintIDPublished data Successfully: %s
 {'temperature': 9, 'heartrate': 91}
Published data Successfully: %s {'temperature': 20, 'heartrate': 95}
Published data Successfully: %s {'temperature': 44, 'heartrate': 68}
Published data Successfully: %s {'temperature': 3, 'heartrate': 83}
Published data Successfully: %s {'temperature': 35, 'heartrate': 90}
Published data Successfully: %s {'temperature': 32, 'heartrate': 65}
Published data Successfully: %s {'temperature': 44, 'heartrate': 97}
Published data Successfully: %s {'temperature': 12, 'heartrate': 65}
Published data Successfully: %s {'temperature': 21, 'heartrate': 95}
Published data Successfully: %s {'temperature': 16, 'heartrate': 60}
```

Uploaded data in Cloud from from beacon scanner



The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
status	{"temperature":29,"heartrate":77}	json	a few seconds ago
status	{"temperature":36,"heartrate":66}	json	a few seconds ago
status	{"temperature":34,"heartrate":72}	json	a few seconds ago
status	{"temperature":37,"heartrate":95}	json	a few seconds ago
status	{"temperature":0,"heartrate":67}	json	a few seconds ago