SPRINT - 3

| Date	12 NOV 2022
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Project Name	Smart Waste Management System for Metropolitan Cities

1, Simulate python code in Python IDE software to transmit data to IBM Watson IOT platform

Python code:

smartbin.py:

```python
import
wiotp.sdk.device import
time import random
myConfig = {
"identity": {
"orgId": "mldk59",
"typeId": "pythoncode",
"deviceId":"252525"
},
"auth": {
"token": "QZqODYo6U*Q6b+IpuC"
} } 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:
    latitude=random.uniform(27.2046,125.25)
longitude=random.uniform(77.4977,100.1526)     binlevel=random.randint(10,100)
binweight = random.randint(50,1500)     if binweight>=1000 and binlevel>80:
myData={'latitude':latitude, 'longitude':longitude,'binlevel':binlevel,
            'binweight':binweight}
client.publishEvent(eventId="status", msgFormat="json", data=myData, qos=0,
onPublish=None)
        ##print("Published data Successfully: %s", myData)
        print("BIN IS FULL..TIME TO EMPTY IT!!!!\n",myData)
client.commandCallback = myCommandCallback
time.sleep(2)     else :
        print("BIN IS IN NORMAL LEVEL...")
time.sleep(2)
```

```
client.disconnect()
```
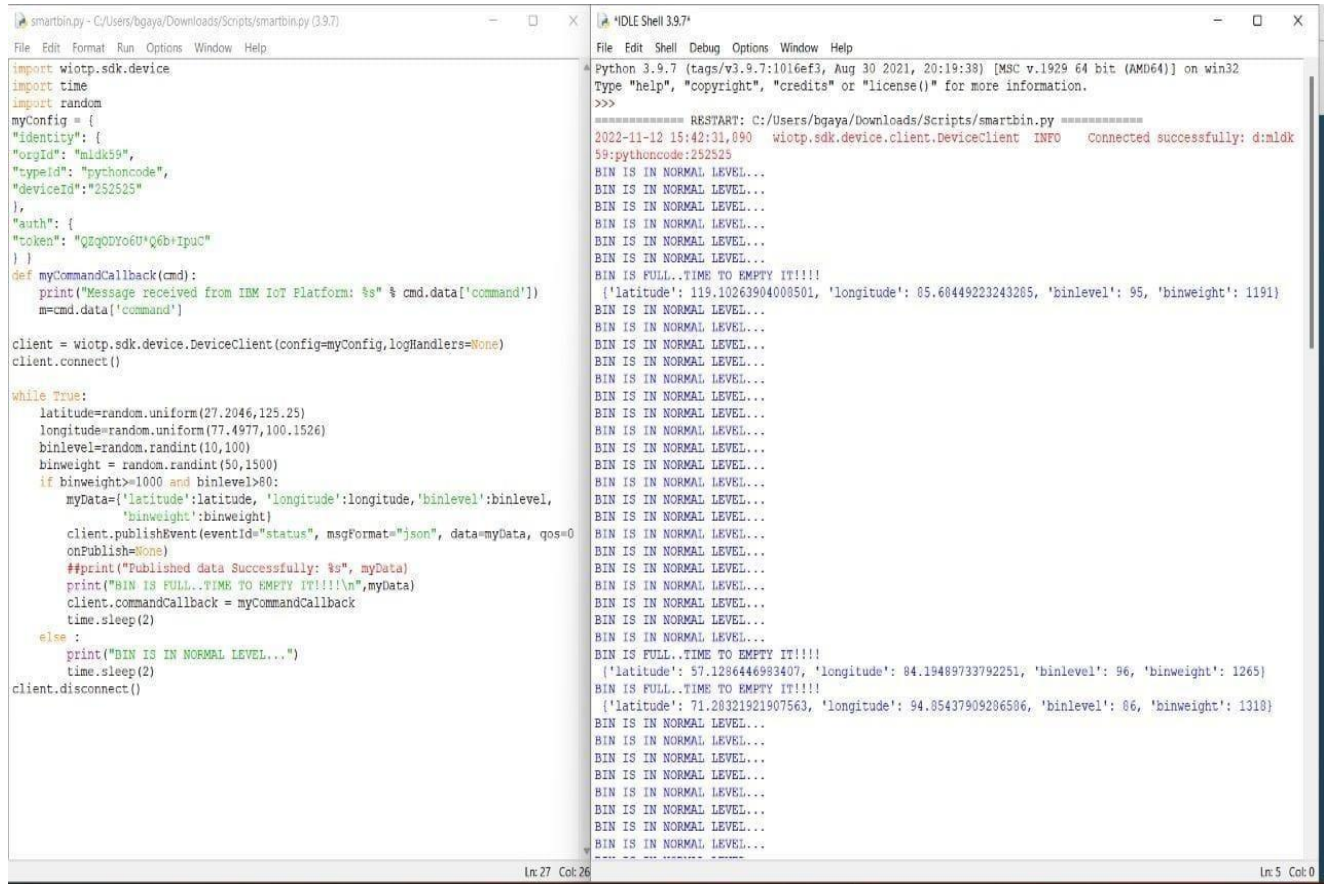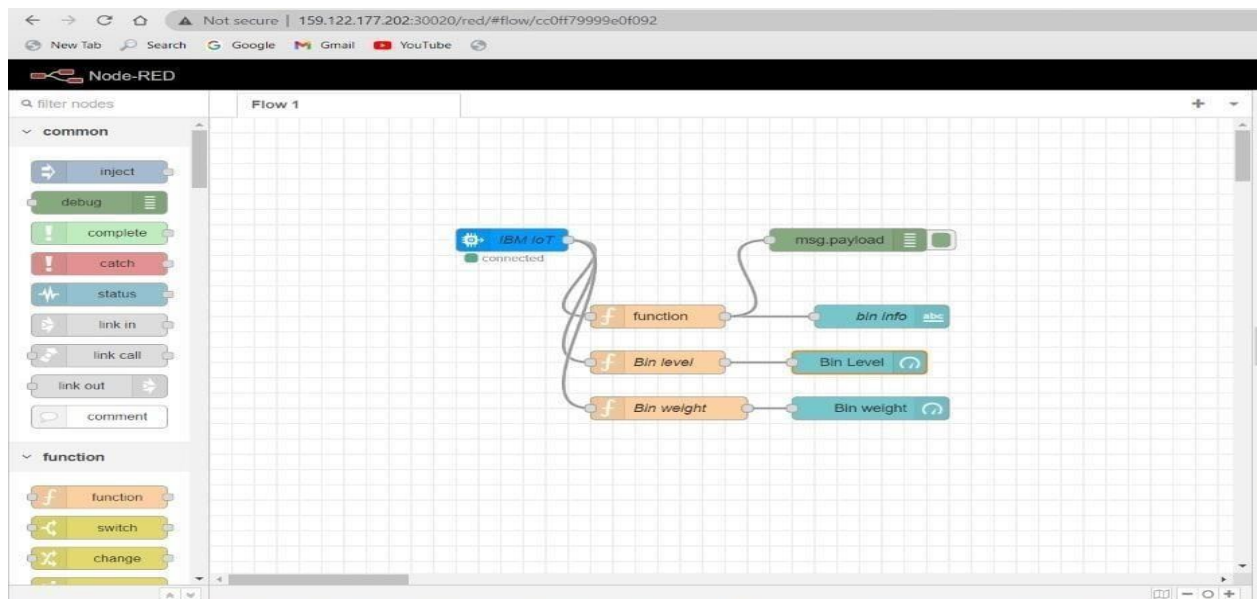
Python IDE output:

2. Data is transferred to IBM Watson IoT platform.
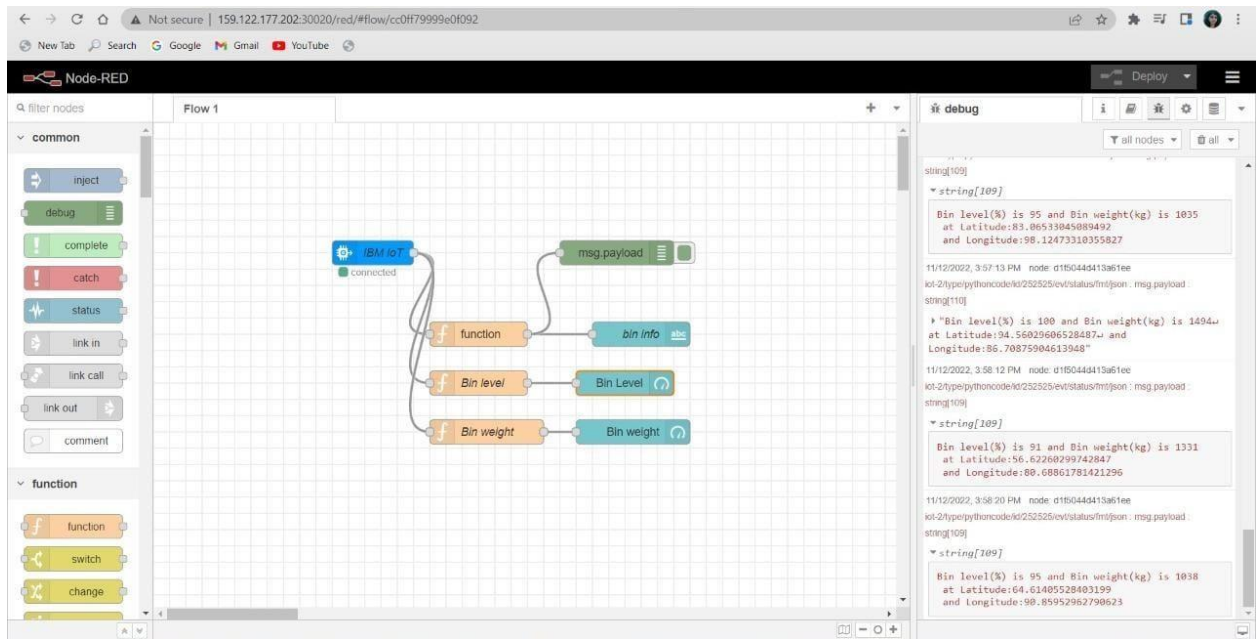
IBM Platform output:
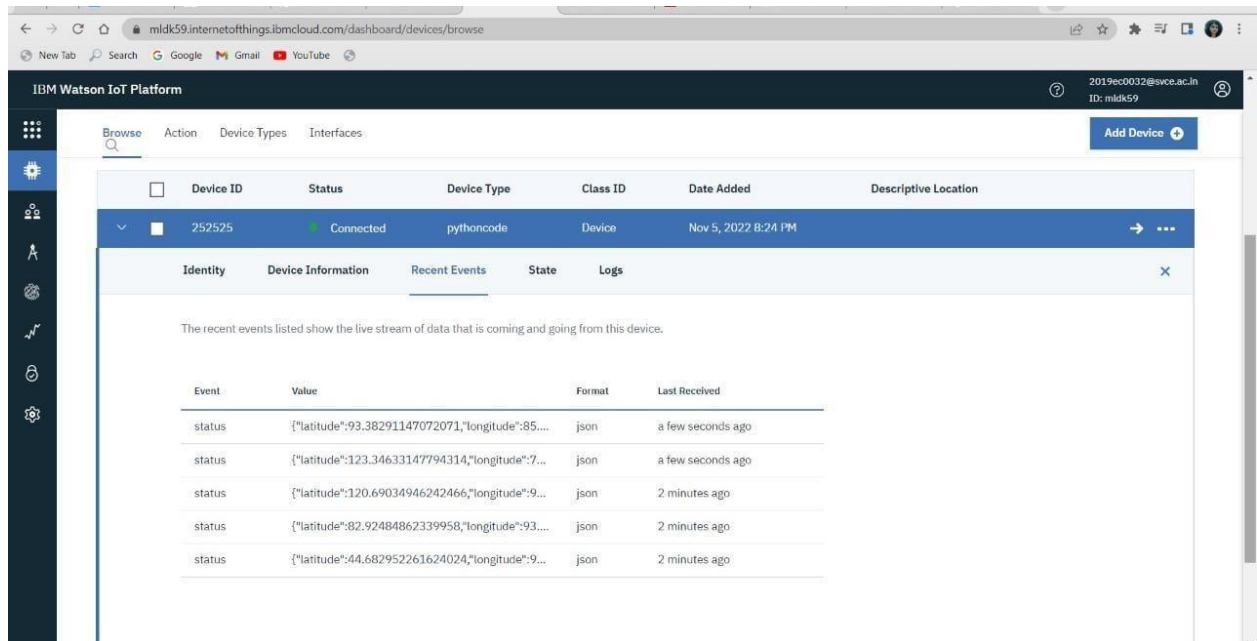
3. Data transfer from IBM Watson IOT platform and Python IDE to Node RED.

Node-RED:

4. Node-RED Connection setup for data transmission from IBM Watson IoT platform to Node-RED dashboard and viewing in Web UI .

Node-RED:

Web UI: