

CODING AND TESTING

SPRINT-2

DATE	09-11-2022
TEAM ID	PNT2022TMID49260
PROJECT NAME	Hazardous area monitoring for industrial power plants powered by IoT

ALGORITHM:

1. Start
2. Import 3 modules
3. Create the IBM IoT platform device
4. Give device id
5. Connect the device
6. Introducing my command call back function
7. Get a random temperature and humidity values
8. Loop infinitely
9. Print the random temperature and humidity values on console
10. Publish the values to IBM Watson IoT platform
11. Stop

PYTHON CODE:

#GENERATING THE RANDOM TEMPERATURE AND HUMIDITY VALUES

#connecting the python to IBM watson IoT platform

```
import wiotp.sdk.device
```

```
import time
```

```
import random
```

```
myconfig = {
```

```
    "identity":{
```

```
        "orgId":"zvvqaf",
```

```
        "typeId":"IoT_devices",
```

```
        "deviceId":"12345"
```

```
    },
```

```
    "auth":{
```

```
        "token":"qagOTm?(qV+deBQ*j*"
```

```
    }
```

```
}
```

```
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(-20,125)
```

```
hum=random.randint(0,100)
```

```
myData={'temperature':temp, 'humidity':hum}
```

```
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()
```

Test case template

Test Case ID:02

Test priority: medium

Module name: Connecting the Quick emulator to IBM Watson IoT platform

Description: Test that Quick emulator is connected to the IBM Watson IoT platform

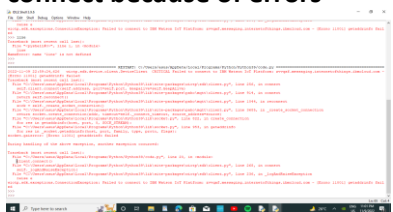
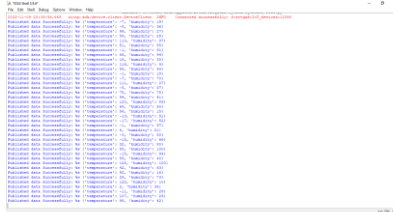
Test designed by: B.Ramya and R.Baranidharan

Test Executed by:M.Rubeena banu

Test execution date:09-11-2022

Preconditions:

User has IBM Watson IoT platform account, pip and Quick emulator (qemu)

Test case name	Action	Test data	Expected result	Actual result
Launch site and login	Enter cloud account username and password	Username: 922319106025@smartinternz.com Password: ****	User should be able to login	User is navigated to dashboard with successful login
Coding	Write a python code to connect the quick emulator to IBM IoT platform	Source code	Quick emulator should be connected to the IoT platform	Quick emulator failed to connect because of errors 
Debugging			Errors should be cleared	Errors are cleared and the program runs successfully 
Compile and run again	Press F5 to run the program		Quick emulator should be connected to the IoT platform	Quick emulator successfully connected to the IBM IoT platform
Recent events	Go to resource list>devices>recent events		User should be able to view recent events	User can view the recent events