CODING AND TESTING

SPRINT-4

DATE	13-11-2022
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:

```
#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']
    if(m=="lighton"):
        print("*****////LIGHTS ARE ON////*****")
    elif(m=="lightoff"):
        print("*****/////LIGHTS ARE OFF////*****")
    else:
        print("****////WRONG 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:04	**Test designed by: M.Rubeena banu**
Test priority: medium	**Test Executed by:M.Rubeena banu**
Module name: Mobile app and alert message	**Test execution date:13-11-2022**
Description: Test the mobile app and alert message	

Preconditions:

User has own http protocol, Mit2 app inventor, email- ID and password

Test case name	Action	Expected result	Actual result
Installation	Install Mit2 app inventor	User should be able to install	User installed the Mit2 app inventor successfully
Login	Provide valid username and password	User should be able to login	User is navigated to dashboard with successful login
User Interface (UI)	Create a UI to display the temperature and humidity value in the mobile app	UI should be created successfully	UI created successfully
Mobile app	Get the temperature and humidity values in mobile	User should be able to view the temperature and humidity values on mobile app	User can view the temperature and humidity values in mobile app successfully
Alert message	Enter the valid Email id and password	User should be notified the alert message	Alert messages are sent to the user successfully