Project Development Phase Sprint-3

Date	14November 2022
Team ID	PNT2022TMID41135
Project Name	Project: Signs with Smart Connectivity for Better Road Safety.
Marks	20 Marks

Sprint	Functional Requirement	User Story Number	User Story/Task	Story Points	Priority	Team Members
Sprint-3		US-1	Develop a python script to publish random sensor data such as temperature, humidity, visibility to the IBM IoT platform.	7	High	R. Snega S. Sneha P. Sowmiya N. Rachel Sarah yazhini
Sprint-3		US-2	After developing python code, commands are received print the statements which represent the control of the devices.	5	Medium	R. Snega S. Sneha P. Sowmiya N. Rachel Sarah yazhini
Sprint-3		US-3	Publish Data to the IBM Cloud.	8	High	R. Snega S. Sneha P. Sowmiya N. Rachel Sarah yazhini

US-1 Develop a python script to publish random sensor data such as temperature, humidity and visibility to the IBM IoT Platform

```
import time import
sys
import ibmiotf.application
import ibmiotf.device import
random

#Provide your IBM Watson Device
Credentials organization = "33lnun" deviceType
= "PNT2022TMID47485" deviceId =
"PNT2022TMID47485" authMethod = "token"
authToken = "BGM(9-Tgfy&lrHmglp"
```

```
#Intialize GPIO

def myCommandCallback(cmd):
    print("Command received: %s % cmd.data['command']")
status=cmd.data['command']
    if status=="lighton":
print ("led is on")     else :
        print("led is off")

    #print(cmd)
     try:
    deviceOptions = {"org": organization,"type":
deviceType,"id":deviceId,"authmethod":authMethod,"auth-token":authToken}
    deviceCli = ibmiotf.device.Client(deviceOptions)
    #.....................................

except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
sys.exit()

    # Connect and send a datapoint "hello" with value "world" into the cloud as
an event of type "greeting" 10 times      deviceCli.connect()

while True:
    #Get Sensor Data from DHT11

    temp=random.randint(0,100)
humid=random.randint(0,100)     visi=random.randint(0,100)

    data = {'temperature'=temp, 'humidity'=humid,'visibility'=visi}
    #print data
    def myOnPublishCallback():
        print("Published temperature=%s C" %temp,"humidity =%s %%"
%humid,"visibility =%s %%" %visi,"to IBM Watson")

        success = deviceCli.publishEvent("IoTSensor","json", data, qos=0,
on_publish=myOnPublishCallback)
        if not success:
            print("Not connected to IoTF")
time.sleep(1)

            deviceCli.commandCallback= myCommandCallback

            #Disconnect the device and application from the cloud
deviceCli.disconnect(
                )
```