GAS LEAKAGE MONITORING AND ALERTING SYSTEM SPRINT – 4

Team ID: PNT2022TMID05161

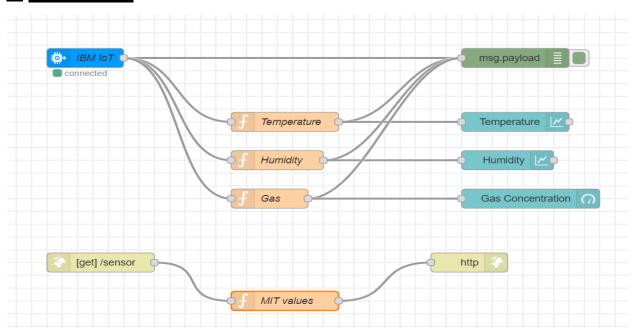
Task

To receive the data from Node-RED to the Mobile App developed using MIT App Inventor.

Procedure:

- 1. In Node-RED **http** node is added to post the data gathered from IBM Watson IoT Platform to a webpage.
- 2. Screen -3 is developed to gather data from the website where the data is published by Node-RED.
- 3. In case of abnormal environmental conditions. An alert message is generated by MIT App.

1. Node-RED:



MIT values (Function):

This function is responsible to post the sensor data to the webpage from where the data is gathered by MIT App.

Source Code:

```
msg.payload = {"temp":global.get("t"), "humid":global.get("h"),
"gas":global.get("g")};
return msg;
```

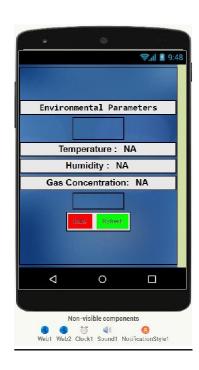
2. Web page:

```
      ✓ C A D in node-red-owqrp-2022-10-06.au-syd.mybluemix.net/sensor

      {"temp":36, "humid":100, "gas":94}
```

3. **MIT App:**

- 1. Blocks for screen 3 has been developed.
- 2. Blocks are capable of generating notification when,
 - a. Temperature is greater than 40°C
 - b. Humidity is greater than 30%
 - c. Concentration of gas is greater than 50%
- 3. Not only notification, this also rings an alarm whenever abnormal



Screen – 3 (Blocks):

```
when Web1 .GotText
 url responseCode responseType responseContent
do set tv. Textv to look up in pairs key temp
                                       pairs call Web1 JsonTextDecode
                                                                   jsonText |
                                                                             get responseContent *
                                   notFound " not found "
     set h . Text . to look up in pairs key
                                               " humid "
                                                call Web1 JsonTextDecode
                                                                    jsonText
                                                                              get responseContent •
                                    notFound |
                                                " not found "
     set g . Text to look up in pairs key gas "
                                               call Web1 .JsonTextDecode
                                        pairs 🎉
                                                                    jsonText
                                                                              get responseContent
                                    notFound [ " not found "
     🔯 if
                t v . Text v > v 40
     then call Sound1 .Play
           call NotificationStyle1 .SimpleNotification
                                                     Alert "
                                           subtitle
                                                     High Temperature Alert
                                           bigText
                                                    true *
                                                    " [1] "
                                         startValue
                                                    0
     🤁 if
                h • . Text • > • (30)
           call Sound1 .Play
           call NotificationStyle1 .SimpleNotification
                                                     Alert "
                                             title
                                                     High Humidity Alert
                                           subtitle
                                           bigText
                                                    true 🔻
                                         startValue
                                                    " Alert "
                                                    1
     🔯 if
                g • Text • > • 50
           call Sound1 .Play
           call NotificationStyle1 .SimpleNotification
                                             title
                                                     Alert "
                                           subtitle
                                                     High Gas Concenteration Alert
                                           bigText
                                                    true 🔻
                                                    " Alert
                                         startValue
```

```
when Clock1 v. Url v to thttps://node-red-owqrp-2022-10-06.au-syd.mybluem... v call Web1 v. Get

when Button1 v. Click
do open another screen screenName Screen2 v

when Button2 v. Click
do set Web1 v. Url v to thttps://node-red-owqrp-2022-10-06.au-syd.mybluem... v call Web1 v. Get
```

These above written blocks are responsible for bringing the data to the mobile app and to generate alarms incase of emergency.

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