```
[
     "id": "d5d1ac02e16a847e",
     "type": "tab",
     "label": "Flow 1",
     "disabled": false,
     "info": "",
     "env": []
  },
     "id": "1533d345e1dc36a9",
     "type": "ui_gauge",
     "z": "d5d1ac02e16a847e",
     "name": "",
     "group": "b0b2466424d96a85",
     "order": 1,
     "width": 0,
     "height": 0,
     "gtype": "gage",
     "title": "Temperature",
     "label": "Celsius",
     "format": "{{value}}",
     "min": 0,
     "max": "100",
     "colors": [
       "#00b500",
       "#e6e600",
       "#ca3838"
     ],
     "seg1": "40",
     "seg2": "60",
     "className": "",
     "x": 910,
     "y": 340,
     "wires": []
  },
     "id": "cbd881198ad25821",
     "type": "function",
     "z": "d5d1ac02e16a847e",
     "name": "Convert",
     "func": "msg.payload=msg.payload.Temperature\nreturn msg;",
     "outputs": 1,
     "noerr": 0,
```

```
"initialize": "",
   "finalize": "",
   "libs": [],
   "x": 460,
   "y": 340,
   "wires": [
     [
        "1533d345e1dc36a9",
        "1cba1c03ecf32aa5",
        "c883c624a3b90fc4",
        "af83517ed28f54e9"
     ]
  ]
},
   "id": "ea14ed512305484e",
   "type": "ibmiot in",
   "z": "d5d1ac02e16a847e",
   "authentication": "apiKey",
   "apiKey": "8d9dadc21a8b3d2f",
   "inputType": "evt",
   "logicalInterface": "",
   "ruleId": "",
   "deviceId": "T1",
  "applicationId": "",
  "deviceType": "Temp",
   "eventType": "+",
  "commandType": "",
   "format": "json",
   "name": "IBM IoT",
   "service": "registered",
   "allDevices": "",
   "allApplications": "",
  "allDeviceTypes": "",
   "allLogicalInterfaces": "",
   "allEvents": true,
   "allCommands": "",
   "allFormats": "",
   "qos": 0,
   "x": 190,
   "y": 340,
   "wires": [
        "cbd881198ad25821"
```

```
]
  ]
},
   "id": "08daf8c27126b608",
   "type": "ibmiot in",
   "z": "d5d1ac02e16a847e",
   "authentication": "apiKey",
   "apiKey": "8d9dadc21a8b3d2f",
   "inputType": "evt",
   "logicalInterface": "",
   "ruleId": "",
   "deviceId": "G1",
   "applicationId": "",
   "deviceType": "Gas_Sensor",
   "eventType": "+",
  "commandType": "",
   "format": "json",
   "name": "IBM IoT",
   "service": "registered",
   "allDevices": "",
   "allApplications": "",
   "allDeviceTypes": false,
   "allLogicalInterfaces": "",
   "allEvents": true,
   "allCommands": "",
   "allFormats": "",
   "qos": 0,
   "x": 190,
   "y": 440,
   "wires": [
     [
        "cce26a0bf1e99e72",
        "d4be4869ed5d4f8c",
        "9669c4a7a1ddc6de"
     ]
  ]
},
   "id": "cce26a0bf1e99e72",
   "type": "function",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "func": "msg.payload=msg.payload.NO2\nreturn msg;",
```

```
"outputs": 1,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
  "x": 480,
  "y": 460,
   "wires": [
     [
        "152e5e18a22ea640",
        "c0b625de4d3f7730"
  ]
},
   "id": "d4be4869ed5d4f8c",
   "type": "function",
   "z": "d5d1ac02e16a847e",
  "name": "",
  "func": "msg.payload=msg.payload.CO\nreturn msg;",
   "outputs": 1,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
  "x": 400,
   "y": 540,
   "wires": [
     [
        "574dedc96208c0aa",
        "f3dd2fc7f39bf5f7"
},
  "id": "9669c4a7a1ddc6de",
   "type": "function",
   "z": "d5d1ac02e16a847e",
  "name": "",
  "func": "msg.payload=msg.payload.CO2\nreturn msg;",
   "outputs": 1,
  "noerr": 0,
   "initialize": "",
   "finalize": "",
```

```
"libs": [],
  "x": 340,
  "y": 660,
   "wires": [
        "8dae8fa1a7ea7415",
        "763a9ae51ae799ec"
},
  "id": "152e5e18a22ea640",
  "type": "ui_gauge",
   "z": "d5d1ac02e16a847e",
  "name": "",
   "group": "d2d6e984eb71a537",
   "order": 1,
   "width": 0,
   "height": 0,
  "gtype": "gage",
  "title": "Nitrogen di Oxide",
   "label": "Percentage",
  "format": "{{value}}",
  "min": 0,
   "max": "100",
   "colors": [
     "#00b500",
     "#e6e600",
     "#ca3838"
  "seg1": "20",
  "seg2": "25",
  "className": "",
   "x": 770,
   "y": 440,
   "wires": []
},
  "id": "574dedc96208c0aa",
  "type": "ui_gauge",
   "z": "d5d1ac02e16a847e",
  "name": "",
  "group": "d2d6e984eb71a537",
   "order": 2,
```

```
"width": 0,
  "height": 0,
   "gtype": "gage",
   "title": "Carbon Mono Oxide",
  "label": "percentage",
   "format": "{{value}}",
  "min": 0,
  "max": "100",
   "colors": [
     "#00b500",
     "#e6e600",
     "#ca3838"
  ],
   "seg1": "3",
  "seg2": "5",
  "className": "",
   "x": 760,
   "y": 540,
   "wires": []
},
   "id": "8dae8fa1a7ea7415",
   "type": "ui_gauge",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "group": "d2d6e984eb71a537",
   "order": 3,
   "width": 0,
   "height": 0,
   "gtype": "gage",
   "title": "Carbon di Oxide",
  "label": "Percentage",
   "format": "{{value}}",
  "min": 0,
   "max": "100",
   "colors": [
     "#00b500",
     "#e6e600",
     "#ca3838"
  ],
   "seg1": "20",
  "seg2": "30",
  "className": "",
  "x": 700,
```

```
"y": 700,
   "wires": []
},
   "id": "8a41db8811f572d9",
   "type": "ui_form",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "label": "",
   "group": "c8492bdcd68680a2",
   "order": 0,
   "width": 0,
  "height": 0,
   "options": [
     {
        "label": "Username",
        "value": "Username",
        "type": "text",
        "required": true,
        "rows": null
     },
        "label": "Email",
        "value": "Email",
        "type": "email",
        "required": true,
        "rows": null
     },
        "label": "Phone Number",
        "value": "Phonenumber",
        "type": "number",
        "required": true,
        "rows": null
     }
   ],
   "formValue": {
     "Username": "",
     "Email": "",
     "Phonenumber": ""
   },
   "payload": "",
   "submit": "submit",
   "cancel": "cancel",
```

```
"topic": "topic",
   "topicType": "msg",
   "splitLayout": "",
  "className": "",
  "x": 210,
   "y": 760,
   "wires": [
     [
        "40123f46207d3c68"
     ]
  ]
},
   "id": "40123f46207d3c68",
   "type": "cloudant out",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "cloudant": "3d10849a8821b6a7",
   "database": "usercredentials",
  "service": "_ext_",
   "payonly": true,
   "operation": "insert",
  "x": 720,
  "y": 760,
  "wires": []
},
  "id": "cec01e40a908c48e",
   "type": "ui_led",
   "z": "d5d1ac02e16a847e",
   "order": 0,
   "group": "b0b2466424d96a85",
   "width": 0,
   "height": 0,
   "label": "Water Sprinkler",
   "labelPlacement": "left",
   "labelAlignment": "left",
   "colorForValue": [
     {
        "color": "#ff0000",
        "value": "false",
        "valueType": "bool"
     },
     {
```

```
"color": "#008000",
        "value": "true",
        "valueType": "bool"
     }
  ],
   "allowColorForValueInMessage": false,
   "shape": "circle",
   "showGlow": true,
   "name": "",
  "x": 850,
  "y": 120,
   "wires": []
},
   "id": "1cba1c03ecf32aa5",
   "type": "function",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "func": "msg.payload=(msg.payload>45)? true: false;\nreturn msg;",
  "outputs": 1,
   "noerr": 0,
  "initialize": "",
  "finalize": "",
  "libs": [],
   "x": 240,
   "y": 120,
   "wires": [
     [
        "80a720021c12cce7"
  ]
},
   "id": "80a720021c12cce7",
   "type": "delay",
  "z": "d5d1ac02e16a847e",
   "name": "",
   "pauseType": "delay",
   "timeout": "1",
   "timeoutUnits": "seconds",
   "rate": "1",
   "nbRateUnits": "1",
   "rateUnits": "second",
   "randomFirst": "1",
```

```
"randomLast": "5",
  "randomUnits": "seconds",
   "drop": false,
   "allowrate": false,
   "outputs": 1,
   "x": 620,
  "y": 120,
   "wires": [
     [
        "cec01e40a908c48e"
  ]
},
   "id": "cebd50b2ed69ccd3",
   "type": "delay",
   "z": "d5d1ac02e16a847e",
  "name": "",
   "pauseType": "delay",
  "timeout": "1",
  "timeoutUnits": "seconds",
   "rate": "1",
  "nbRateUnits": "1",
  "rateUnits": "second",
   "randomFirst": "1",
   "randomLast": "5",
   "randomUnits": "seconds",
  "drop": false,
   "allowrate": false,
   "outputs": 1,
  "x": 620,
   "y": 180,
   "wires": [
        "1b0bc39e91d2d4dc"
  ]
},
   "id": "56b6fd723b216743",
   "type": "delay",
   "z": "d5d1ac02e16a847e",
   "name": "",
  "pauseType": "delay",
```

```
"timeout": "1",
  "timeoutUnits": "seconds",
  "rate": "1",
  "nbRateUnits": "1",
  "rateUnits": "second",
  "randomFirst": "1",
  "randomLast": "5",
  "randomUnits": "seconds",
  "drop": false,
  "allowrate": false,
  "outputs": 1,
  "x": 620,
  "y": 240,
  "wires": [
     "dc9bb5498dd98dfc"
  ]
},
  "id": "1b0bc39e91d2d4dc",
  "type": "ui_led",
  "z": "d5d1ac02e16a847e",
  "order": 1,
  "group": "b0b2466424d96a85",
  "width": 0,
  "height": 0,
  "label": "Exhaust fan",
  "labelPlacement": "left",
  "labelAlignment": "left",
  "colorForValue": [
     {
       "color": "#ff0000",
       "value": "false",
       "valueType": "bool"
    },
       "color": "#008000",
       "value": "true",
       "valueType": "bool"
     }
  ],
  "allowColorForValueInMessage": false,
  "shape": "circle",
```

```
"showGlow": true,
  "name": "",
  "x": 850,
  "y": 180,
   "wires": []
},
   "id": "dc9bb5498dd98dfc",
   "type": "ui_led",
   "z": "d5d1ac02e16a847e",
   "order": 2,
   "group": "b0b2466424d96a85",
   "width": 0,
   "height": 0,
  "label": "Fire Alarm",
   "labelPlacement": "left",
  "labelAlignment": "left",
   "colorForValue": [
     {
        "color": "#ff0000",
        "value": "false",
        "valueType": "bool"
     },
        "color": "#008000",
        "value": "true",
        "valueType": "bool"
     }
   "allowColorForValueInMessage": false,
   "shape": "circle",
   "showGlow": true,
   "name": "",
   "x": 850,
   "y": 240,
   "wires": []
},
   "id": "c883c624a3b90fc4",
   "type": "ui_chart",
   "z": "d5d1ac02e16a847e",
  "name": "",
   "group": "b0b2466424d96a85",
   "order": 0,
```

```
"width": 0,
  "height": 0,
  "label": "Analytics",
  "chartType": "line",
  "legend": "false",
  "xformat": "auto",
  "interpolate": "linear",
  "nodata": "Waiting for data",
  "dot": false,
  "ymin": "0",
  "ymax": "100",
  "removeOlder": "60",
  "removeOlderPoints": "",
  "removeOlderUnit": "1",
  "cutout": 0,
  "useOneColor": false,
  "useUTC": false,
  "colors": [
     "#42b0ff",
     "#aec7e8",
     "#ff7f0e",
     "#1adb1a",
     "#98df8a",
     "#d62728",
     "#ff9896",
     "#9467bd",
     "#c5b0d5"
  ],
  "outputs": 1,
  "useDifferentColor": false,
  "className": "",
  "x": 940,
  "y": 380,
  "wires": [
     },
  "id": "763a9ae51ae799ec",
  "type": "ui_chart",
  "z": "d5d1ac02e16a847e",
  "name": "",
  "group": "5a710181faf582af",
  "order": 5,
```

```
"width": 0,
"height": 0,
"label": "CO2 Analysis",
"chartType": "line",
"legend": "false",
"xformat": "HH:mm:ss",
"interpolate": "linear",
"nodata": "",
"dot": false,
"ymin": "0",
"ymax": "100",
"removeOlder": "60",
"removeOlderPoints": "",
"removeOlderUnit": "1",
"cutout": 0,
"useOneColor": false,
"useUTC": false,
"colors": [
  "#1f77b4",
  "#aec7e8",
  "#ff7f0e",
  "#2ca02c",
  "#98df8a",
  "#df2a2a",
  "#ff9896",
  "#9467bd",
  "#c5b0d5"
],
"outputs": 1,
"useDifferentColor": false,
"className": "",
"x": 700,
"y": 640,
"wires": [
  "id": "c0b625de4d3f7730",
"type": "ui_chart",
"z": "d5d1ac02e16a847e",
"name": "",
"group": "5a710181faf582af",
"order": 3,
```

},

```
"width": 0,
  "height": 0,
  "label": "NO2 Analysis",
  "chartType": "line",
  "legend": "false",
  "xformat": "HH:mm:ss",
  "interpolate": "linear",
  "nodata": "",
  "dot": false,
  "ymin": "0",
  "ymax": "100",
  "removeOlder": "60",
  "removeOlderPoints": "",
  "removeOlderUnit": "1",
  "cutout": 0,
  "useOneColor": false,
  "useUTC": false,
  "colors": [
     "#1f77b4",
     "#aec7e8",
     "#ff7f0e",
     "#2ca02c",
     "#98df8a",
     "#d62728",
     "#ff9896",
     "#9467bd",
     "#c5b0d5"
  ],
  "outputs": 1,
  "useDifferentColor": false,
  "className": "",
  "x": 740,
  "y": 500,
  "wires": [
     },
  "id": "f3dd2fc7f39bf5f7",
  "type": "ui_chart",
  "z": "d5d1ac02e16a847e",
  "name": "",
  "group": "5a710181faf582af",
  "order": 4,
```

```
"width": 0,
"height": 0,
"label": "CO Analysis",
"chartType": "line",
"legend": "false",
"xformat": "HH:mm:ss",
"interpolate": "linear",
"nodata": "",
"dot": false,
"ymin": "0",
"ymax": "100",
"removeOlder": "60",
"removeOlderPoints": "",
"removeOlderUnit": "1",
"cutout": 0,
"useOneColor": false,
"useUTC": false,
"colors": [
  "#1f77b4",
  "#aec7e8",
  "#ff7f0e",
  "#2ca52c",
  "#98df8a",
  "#d62728",
  "#ff9896",
  "#9467bd",
  "#c5b0d5"
],
"outputs": 1,
"useDifferentColor": false,
"className": "",
"x": 750,
"y": 580,
"wires": [
  ]
"id": "af83517ed28f54e9",
"type": "function",
"z": "d5d1ac02e16a847e",
"name": "",
"func": "msg.payload=(msg.payload>70)? true: false;\nreturn msg;",
"outputs": 1,
```

},

```
"noerr": 0,
   "initialize": "",
  "finalize": "",
   "libs": [],
  "x": 360,
   "y": 180,
   "wires": [
     [
        "56b6fd723b216743",
        "cebd50b2ed69ccd3"
  ]
},
   "id": "5cd6db4b75445da3",
   "type": "debug",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "active": true,
   "tosidebar": true,
   "console": false,
   "tostatus": false,
   "complete": "payload",
   "targetType": "msg",
   "statusVal": "",
  "statusType": "auto",
   "x": 690,
  "y": 920,
   "wires": []
},
   "id": "ab2c14742c0e6cb4",
   "type": "cloudant in",
   "z": "d5d1ac02e16a847e",
   "name": "",
   "cloudant": "3d10849a8821b6a7",
   "database": "usercredentials",
  "service": "_ext_",
   "search": "_all_",
   "design": "Usercredentials",
   "index": "Phonenumber",
   "x": 460,
   "y": 860,
   "wires": [
```

```
[
        "5cd6db4b75445da3"
},
  "id": "7c787911c08c4fcb",
  "type": "inject",
   "z": "d5d1ac02e16a847e",
  "name": "",
  "props": [
     {
        "p": "payload"
     },
        "p": "topic",
        "vt": "str"
     }
  ],
  "repeat": "",
  "crontab": "",
   "once": false,
  "onceDelay": 0.1,
  "topic": "",
  "payload": "",
  "payloadType": "date",
  "x": 160,
  "y": 860,
   "wires": [
        "ab2c14742c0e6cb4"
},
  "id": "1d8c19444aee18bf",
  "type": "debug",
   "z": "d5d1ac02e16a847e",
  "name": "",
  "active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
```

```
"statusVal": "",
     "statusType": "auto",
     "x": 850,
     "y": 20,
     "wires": []
  },
     "id": "3c36398fb917a7c9",
     "type": "python-function",
     "z": "d5d1ac02e16a847e",
     "name": "",
     "func": "import requests\nurl = \"https://www.fast2sms.com/dev/bulkV2\"\npayload =
\"sender id=FSTSMS&message=Alert!&language=english&route=p&numbers=9095057479\"\n
headers = {\n'authorization':
\"o0azwVFNHOM5B3hrRxdenyU2cfZujqSpYEX7t8LAgJPb9kliWCugDvo1n0kcY8TGHOt3dIQws
KpLbAJU\",\n'Content-Type': \"application/x-www-form-urlencoded\",\n'Cache-Control':
\"no-cache\",\n}\nresponse = requests.request(\"POST\", url, data=payload,
headers=headers)\nprint(response.text)\n",
     "outputs": 1,
     "x": 580,
     "y": 20,
     "wires": [
         "1d8c19444aee18bf"
    1
  },
     "id": "057ef750bef3fc86",
     "type": "inject",
     "z": "d5d1ac02e16a847e",
     "name": "",
     "props": [
       {
         "p": "payload"
       },
         "p": "topic",
         "vt": "str"
       }
     ],
     "repeat": "",
     "crontab": "",
     "once": false,
```

```
"onceDelay": 0.1,
  "topic": "",
  "payload": "",
   "payloadType": "date",
  "x": 180,
  "y": 20,
   "wires": [
     [
        "3c36398fb917a7c9"
     ]
  ]
},
   "id": "b0b2466424d96a85",
   "type": "ui_group",
   "name": "Temperature",
   "tab": "477494a5baf03dbe",
   "order": 3,
   "disp": true,
   "width": "6",
  "collapse": false,
   "className": ""
},
   "id": "8d9dadc21a8b3d2f",
   "type": "ibmiot",
   "name": "IBM_IOT",
  "keepalive": "60",
   "serverName": "Iryrya.messaging.internetofthings.ibmcloud.com",
   "cleansession": true,
   "appld": "",
   "shared": false
},
   "id": "d2d6e984eb71a537",
   "type": "ui_group",
   "name": "Gas Sensor",
   "tab": "e208207b5344b7ac",
   "order": 2,
   "disp": true,
   "width": "6",
   "collapse": false,
   "className": ""
},
```

```
{
     "id": "c8492bdcd68680a2",
     "type": "ui group",
     "name": "Register Form",
     "tab": "94803c79c48f4a14",
     "order": 3,
     "disp": true,
     "width": "6",
     "collapse": false,
     "className": ""
  },
     "id": "3d10849a8821b6a7",
     "type": "cloudant",
    "host":
"https://apikey-v2-2uxme1xe4ze15rnf5fh8l40eg4coz66pm8ateuwy93py:0172158934b6c3a3e8b
39b0511e7af20@e8e96f53-33f3-4fd1-bb73-6fb98205f7c2-bluemix.cloudantnosqldb.appdomain.
cloud",
     "name": ""
  },
     "id": "5a710181faf582af",
     "type": "ui_group",
     "name": "Gas Analytics",
     "tab": "e208207b5344b7ac",
     "order": 3,
     "disp": true,
     "width": "6",
     "collapse": false,
     "className": ""
  },
     "id": "477494a5baf03dbe",
     "type": "ui_tab",
     "name": "Temperature",
     "icon": "dashboard",
     "disabled": false,
     "hidden": false
  },
     "id": "e208207b5344b7ac",
     "type": "ui_tab",
     "name": "Gas Sensor",
     "icon": "dashboard",
```

```
"disabled": false,
    "hidden": false
},
{
    "id": "94803c79c48f4a14",
    "type": "ui_tab",
    "name": "Register Form",
    "icon": "dashboard",
    "disabled": false,
    "hidden": false
}
]
```