SPRINT - 2

DOMAIN: IoT

PROJECT TITLE: Smart Farmer – IOT Enabled Smart Farming Application.

TEAM ID

PNT2022TMID23131

TEAM MEMBERS:

JEEVA GETZIE CYNTHIA.A(913119106038)

SRINITHI.A(913119106109)

AFRIN JUMANA.M(913119106005)

PRIYA.M(913119106079)

```
"id": "8fab44bd.a90a78",
    "type": "tab",
    "label": "IBM IoT-UI",
    "disabled": false,
    "info": ""
},
    "id": "ae13bd5c.c66c8",
    "type": "ibmiot in",
    "z": "8fab44bd.a90a78",
    "authentication": "apiKey",
    "apiKey": "7dd0c222.d9446c",
    "inputType": "evt",
    "logicalInterface": "",
    "ruleId": "",
    "deviceId": "1410a2000",
    "applicationId": "",
    "deviceType": "IoT_Sensor",
    "eventType": "+",
    "commandType": "Data",
    "format": "json",
    "name": "IBM IoT",
    "service": "registered",
    "allDevices": "",
    "allApplications": "",
    "allDeviceTypes": "",
    "allLogicalInterfaces": "",
    "allEvents": true,
```

```
"allCommands": "",
    "allFormats": "",
    "qos": 0,
    "x": 70,
    "y": 140,
    "wires": [
        "dde0e6ad.e51b68",
            "ace840b4.e9014",
            "811784ad.111378",
            "68abc0e2.cc756"
    ]
},
    "id": "dde0e6ad.e51b68",
    "type": "debug",
    "z": "8fab44bd.a90a78",
    "name": "",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "payload",
    "targetType": "msg",
    "x": 290,
    "y": 200,
    "wires": []
},
    "id": "ace840b4.e9014",
    "type": "function",
    "z": "8fab44bd.a90a78",
    "name": "Temperature",
    "func": "msg.payload=msg.payload.d.temperature\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 300,
    "y": 80,
    "wires": [
        [
            "dde0e6ad.e51b68",
            "2c5a1cb7.66dab4",
            "18710b82.ee1814"
    ]
},
    "id": "811784ad.111378",
    "type": "function",
    "z": "8fab44bd.a90a78",
    "name": "Humidity",
    "func": "msg.payload=msg.payload.d.humidity\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 280,
```

```
"y": 120,
    "wires": [
        [
            "dde0e6ad.e51b68",
            "2a63b2e5.7f752e",
            "7403cd54.192ce4"
    ]
},
    "id": "2c5a1cb7.66dab4",
    "type": "ui_gauge",
    "z": "8fab44bd.a90a78",
    "name": "",
    "group": "3c243370.98abdc",
    "order": 0,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": " IBM Waston Sensor Temperature",
    "label": "°C",
    "format": "{{value}}",
    "min": 0,
    "max": "40",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    "seg1": "",
    "seg2": "",
    "x": 600,
    "y": 80,
    "wires": []
},
    "id": "2a63b2e5.7f752e",
    "type": "ui_gauge",
    "z": "8fab44bd.a90a78",
    "name": "",
    "group": "3c243370.98abdc",
    "order": 0,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": "IBM Waston Sensor Humidity",
    "label": "%",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    "seg1": "",
```

```
"seg2": "",
    "x": 580,
    "y": 120,
    "wires": []
},
    "id": "68abc0e2.cc756",
    "type": "function",
    "z": "8fab44bd.a90a78",
    "name": "Soil Temperature",
    "func": "msg.payload=msg.payload.d.objectTemp\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 310,
    "y": 160,
    "wires": [
        [
            "f31ac5a2.181198",
            "f1d8cb5e.6ae208",
            "dde0e6ad.e51b68"
    ]
},
    "id": "f31ac5a2.181198",
    "type": "ui_gauge",
    "z": "8fab44bd.a90a78",
    "name": "",
    "group": "3c243370.98abdc",
    "order": 7,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": "IBM Sensor Soil Temperature",
    "label": "°C",
    "format": "{{value}}",
    "min": 0,
    "max": "40",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    ],
    "seg1": "",
    "seg2": "",
    "x": 580,
    "y": 200,
    "wires": []
},
    "id": "18710b82.ee1814",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "3c243370.98abdc",
    "order": 5,
    "width": 0,
```

```
"height": 0,
    "name": "",
    "label": "IBM Watson Sensor Temperature (°C)", "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 610,
    "y": 40,
    "wires": []
},
    "id": "7403cd54.192ce4",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "3c243370.98abdc",
    "order": 5,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "IBM Watson Sensor Humidity (%)",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 600,
    "y": 160,
    "wires": []
},
    "id": "f1d8cb5e.6ae208",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "3c243370.98abdc",
    "order": 5,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "IBM Sensor Soil Temperature (°C)",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 600,
    "y": 240,
    "wires": []
},
    "id": "c00e705c.cffb3",
    "type": "inject",
    "z": "8fab44bd.a90a78",
    "name": "HTTP Inject",
    "topic": "",
    "payload": "",
    "payloadType": "date",
    "repeat": "10",
    "crontab": "",
    "once": true,
    "onceDelay": "0.1",
    "x": 110,
    "y": 280,
    "wires": [
```

```
[
                "cd4ebeaf.9f68a"
            1
        ]
   },
        "id": "cd4ebeaf.9f68a",
        "type": "http request",
        "z": "8fab44bd.a90a78",
        "name": "",
        "method": "GET",
        "ret": "obj",
        "paytoqs": false,
        "url":
"http://api.openweathermap.org/data/2.5/weather?q=Mumbai&units=metric&appid=577a1cbd
cb2a11d51cc74f5f5962791a",
        "tls": "",
        "persist": false,
        "proxy": "",
        "authType": "",
        "x": 270,
        "y": 280,
        "wires": [
            "b64ad60d.4bb4b8",
                "432a3d64.d27124",
                "38059f89.05df"
        ]
   },
        "id": "b64ad60d.4bb4b8",
        "type": "function",
        "z": "8fab44bd.a90a78",
        "name": "TemperatureAPI",
        "func": "msg.payload=msg.payload.main.temp\nreturn msg;",
        "outputs": 1,
        "noerr": 0,
        "x": 460,
        "y": 280,
        "wires": [
            "34ddf39f.c565dc",
                "79eca53d.2c641c"
        ]
   },
        "id": "34ddf39f.c565dc",
        "type": "ui_gauge",
        "z": "8fab44bd.a90a78",
        "name": "",
        "group": "5c872dc1.21f164",
        "order": 8,
        "width": 0,
        "height": 0,
```

```
"gtype": "gage",
    "title": "Temperature",
    "label": "°C",
    "format": "{{value}}",
    "min": 0,
    "max": "40",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    "seg1": "",
    "seg2": "",
    "x": 630,
    "y": 320,
    "wires": []
},
    "id": "4957277d.6043c8",
    "type": "ui_gauge",
    "z": "8fab44bd.a90a78",
    "name": "",
    "group": "5c872dc1.21f164",
    "order": 9,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": "Humidity",
    "label": "%",
"format": "{{value}}",
    "min": 0,
    "max": "100",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    "seg1": "",
    "seg2": "",
    "x": 620,
    "y": 360,
    "wires": []
},
    "id": "432a3d64.d27124",
    "type": "function",
    "z": "8fab44bd.a90a78",
    "name": "Humidity",
    "func": "msg.payload=msg.payload.main.humidity\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 440,
    "y": 320,
    "wires": [
        "4957277d.6043c8",
```

```
"1a959367.7575fd"
    1
},
    "id": "79eca53d.2c641c",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "5c872dc1.21f164",
    "order": 5,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "Real-time Temperature (°C)",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 680,
    "y": 280,
    "wires": []
},
    "id": "1a959367.7575fd",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "5c872dc1.21f164",
    "order": 5,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "Real-time Humidity (%)",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 670,
    "y": 400,
    "wires": []
},
    "id": "38059f89.05df",
    "type": "function",
    "z": "8fab44bd.a90a78",
    "name": "FeelsLike",
    "func": "msg.payload=msg.payload.main.feels_like\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 440,
    "y": 420,
    "wires": [
        [
            "b83b554b.f16538",
            "84fd029d.60bce"
    ]
},
    "id": "b83b554b.f16538",
    "type": "ui_gauge",
```

```
"z": "8fab44bd.a90a78",
    "name": "",
    "group": "5c872dc1.21f164",
    "order": 8,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": "FeelsLike Temperature",
    "label": "°C",
    "format": "{{value}}",
    "min": 0,
    "max": "40",
    "colors": [
        "#00b500",
        "#e6e600",
        "#ca3838"
    ],
    "seg1": "",
    "seg2": "",
    "x": 660,
    "y": 440,
    "wires": []
},
    "id": "84fd029d.60bce",
    "type": "ui_text",
    "z": "8fab44bd.a90a78",
    "group": "5c872dc1.21f164",
    "order": 5,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "FeelsLike Temperature (°C)",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 680,
    "y": 480,
    "wires": []
},
    "id": "d8ff56c3.89cc68",
    "type": "ibmiot out",
    "z": "8fab44bd.a90a78",
    "authentication": "apiKey",
    "apiKey": "7dd0c222.d9446c",
    "outputType": "cmd",
    "deviceId": "1234",
    "deviceType": "Data",
    "eventCommandType": "blink",
    "format": "json",
    "data": "Data",
    "qos": 0,
    "name": "IBM IoT",
    "service": "registered",
    "x": 740,
    "y": 560,
```

```
"wires": []
},
{
    "id": "b4ee8e7b.1e364",
    "type": "ui_button",
    "z": "8fab44bd.a90a78",
    "name": "MOTOR ON",
    "group": "95ec373b.008dd8",
    "order": 1,
    "width": 4,
    "height": 2,
    "passthru": false,
    "label": "WaterPump ON",
    "tooltip": "",
"color": "",
    "bgcolor": "#008000",
    "icon": "",
    "payload": "true",
    "payloadType": "bool",
    "topic": "",
    "x": 110,
    "y": 520,
    "wires": [
            "832d7371.b7f0f"
        ]
    ]
},
    "id": "8f5e6fc7.0fa44",
    "type": "ui_button",
    "z": "8fab44bd.a90a78",
    "name": "MOTOR OFF",
    "group": "95ec373b.008dd8",
    "order": 2,
    "width": 4,
    "height": 2,
    "passthru": false,
    "label": "WaterPump OFF",
    "tooltip": "",
"color": "",
    "bgcolor": "#FF0000",
    "icon": "",
    "payload": "false",
    "payloadType": "bool",
    "topic": "",
    "x": 100,
    "y": 560,
    "wires": [
             "832d7371.b7f0f"
        ]
    ]
},
{
    "id": "832d7371.b7f0f",
```

```
"type": "function",
        "z": "8fab44bd.a90a78",
        "name": "MOTOR_STATUS_CHECK",
        "func": "if(msg.payload === true)\n
                                              msg.payload =
'{\"motor\":\"ON\"}'\nelse\n
                               msg.payload = '{\"motor\":\"OFF\"}'\nreturn msg;",
        "outputs": 1,
        "noerr": 0,
        "x": 360,
        "y": 540,
        "wires": [
                 "864d1114.f5ca6",
                "b4f33b63.71c3e8"
        ]
    },
        "id": "864d1114.f5ca6",
        "type": "function",
        "z": "8fab44bd.a90a78",
        "name": "Status",
        "func": "var data=JSON.parse(msg.payload);\nmsg.payload=data.motor;\nreturn
msg;\n",
        "outputs": 1,
        "noerr": 0,
        "x": 570,
        "y": 520,
        "wires": [
            "bf60451b.fd8be8",
                 "f2e6273b.57ac58",
                "9087050c.0e4fd8"
        ]
    },
        "id": "b4f33b63.71c3e8",
        "type": "json",
        "z": "8fab44bd.a90a78",
        "name": "MOTOR",
        "property": "payload",
        "action": "".
        "pretty": false,
        "x": 580,
        "y": 560,
        "wires": [
                 "d8ff56c3.89cc68"
        ]
    },
        "id": "bf60451b.fd8be8",
        "type": "ui_text",
        "z": "8fab44bd.a90a78",
        "group": "95ec373b.008dd8",
```

```
"order": 3,
    "width": 0,
    "height": 0,
    "name": "",
    "label": "MOTOR STATUS:",
    "format": "{{msg.payload}}",
    "layout": "row-spread",
    "x": 750,
    "y": 520,
    "wires": []
},
    "id": "f2e6273b.57ac58",
    "type": "ui_toast",
    "z": "8fab44bd.a90a78",
    "position": "top right",
    "displayTime": "3",
    "highlight": "",
    "sendall": true,
    "outputs": 0,
    "ok": "OK",
"cancel": ""
    "raw": true,
    "topic": "",
    "name": "Notif",
    "x": 910,
    "y": 520,
    "wires": []
},
    "id": "9087050c.0e4fd8",
    "type": "ui_audio",
    "z": "8fab44bd.a90a78",
    "name": "Audio",
    "group": "95ec373b.008dd8",
    "voice": "en-US",
    "always": true,
    "x": 910,
    "y": 560,
    "wires": []
},
    "id": "7dd0c222.d9446c",
    "type": "ibmiot",
    "z": "",
    "name": * ""
    "keepalive": "60",
    "serverName": "",
    "cleansession": true,
    "appId": "",
    "shared": false
},
    "id": "3c243370.98abdc",
    "type": "ui_group",
    "z": "",
```

```
"name": "IBM Watson",
    "tab": "8314a149.d930b",
    "order": 1,
    "disp": true,
    "width": "6",
    "collapse": false
},
    "id": "5c872dc1.21f164",
    "type": "ui_group",
"z": "",
    "name": "Realt-time Weather",
    "tab": "8314a149.d930b",
    "order": 1,
    "disp": true,
    "width": "6",
    "collapse": false
},
    "id": "95ec373b.008dd8",
    "type": "ui_group",
    "z": "",
"name": "Motor Control",
    "tab": "e07a6d62.98f32",
    "order": 1,
    "disp": true,
    "width": 8,
    "collapse": false
},
    "id": "8314a149.d930b",
    "type": "ui_tab",
    "z": "",
    "name": "IBM Watson Sensor Data",
    "icon": "dashboard",
    "disabled": false,
    "hidden": false
},
    "id": "e07a6d62.98f32",
    "type": "ui_tab",
    "z": "",
"name": "Controls",
    "icon": "dashboard",
    "disabled": false,
    "hidden": false
}
```

1