

SPRINT-3

Team Id	PNT2022TMID07443
Project Name	Smart Farmer-IoT enabled smart farming application
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NODE -RED FLOW:

Node Red Login:

Node-RED on IBM Cloud

Node-RED

Flow-based programming for the Internet of Things

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

This instance is running as an IBM Cloud application, giving it access to the wide range of services available on the platform.

More information about Node-RED, including documentation, can be found at nodered.org.

[Go to your Node-RED flow editor](#)

[Learn how to customise Node-RED](#)

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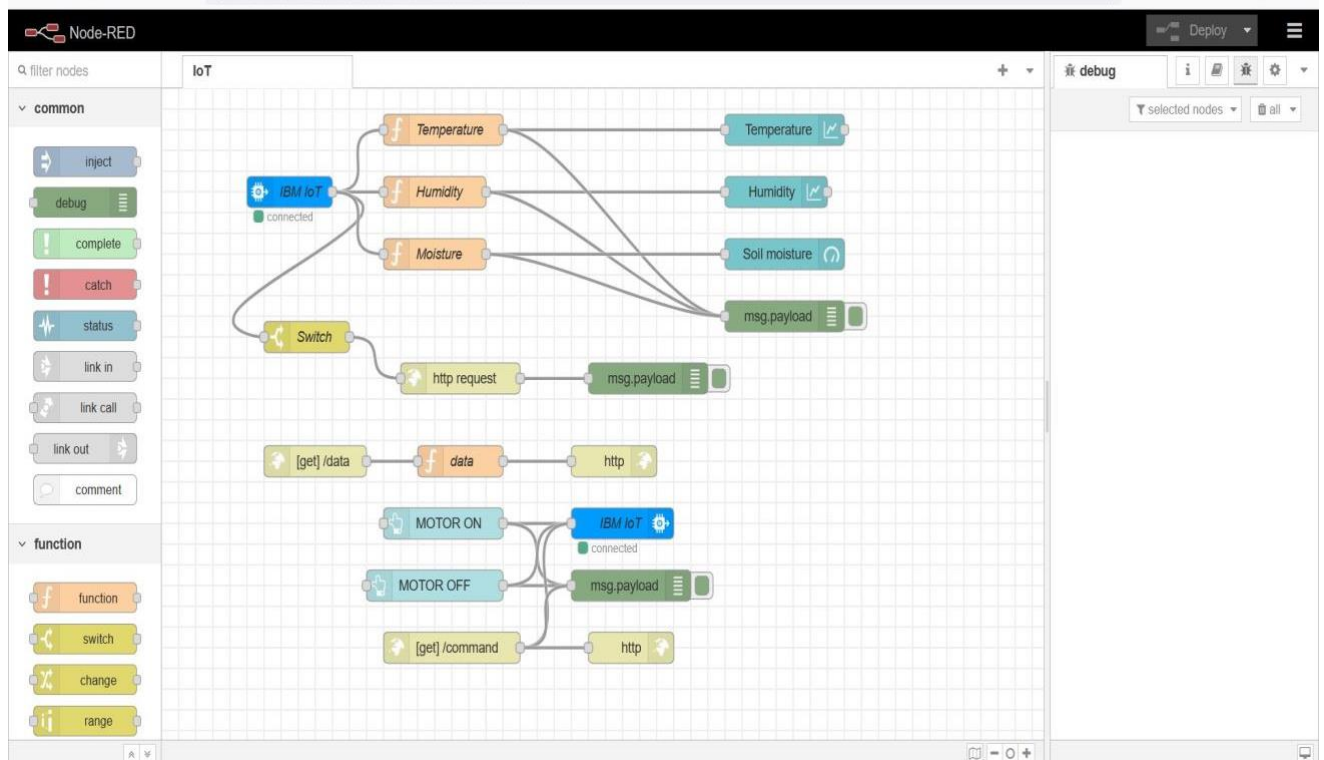
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159.122.178.67:31997/red/

Creating the Project Flow:



The screenshot displays the Node-RED IoT interface. On the left, the 'common' and 'function' node palettes are visible. The central workspace shows a flow diagram with an 'IBM IoT' node connected to a 'Switch' node, which then branches into 'Temperature', 'Humidity', and 'Moisture' nodes. These nodes are connected to an 'http request' node, which is linked to a '[get] /data' node. The '[get] /data' node is connected to a 'data' node, which is linked to a 'MOTOR ON' node. The 'MOTOR ON' node is connected to a 'MOTOR OFF' node, which is linked to a '[get] /command' node. The right panel shows the 'Edit IBMiot in node' configuration. The 'Properties' section includes 'Authentication' (API Key), 'API Key' (IoT IN), 'Input Type' (Device Event), 'Device Type' (All or +), 'Device Id' (All or device id e.g. sb12od231a21), 'Event' (All or +), 'Format' (All or json), 'QoS' (0), 'Name' (IBM IoT), and 'Service' (registered). A note at the bottom states: 'Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status Messages'.

The screenshot displays the Node-RED web interface for an IoT sensor network. The main workspace shows a flow named 'Flow 1' on a grid background. The flow starts with an 'IBM IoT' node (blue) labeled 'connected'. This node connects to a 'Switch' node (yellow). The 'Switch' node has three outgoing paths: 1) A path through 'temp' (orange) and 'Humid' (orange) nodes to a 'Temperature Gauge' (blue) and 'Humidity' (blue) gauge nodes, which then connect to 'Temp' (green) and 'Humid' (green) output nodes. 2) A path through a 'moist' (orange) node to a 'Moisture' (blue) gauge node, which connects to a 'Moist' (green) output node. 3) A path through an 'http request' (yellow) node to a 'msg.payload' (green) output node. Below this, there is another flow starting with a '[get] /data' (yellow) node, followed by a 'data' (orange) node, which connects to an 'http' (yellow) node. This 'http' node connects to another 'IBM IoT' node (blue) labeled 'connected'. This second 'IBM IoT' node connects to a 'msg.payload' (green) output node and an 'http' (yellow) node. The 'MOTOR ON' (blue) and 'MOTOR OFF' (blue) nodes also connect to the 'msg.payload' output node. The right sidebar shows a 'debug' console with logs for the 'node: Temp', 'node: Humid', and 'node: Moist' nodes, displaying their respective payloads. The top bar shows the 'Node-RED' logo and a 'Deploy' button. The left sidebar shows a 'filter nodes' search bar and a list of common and function nodes.