

SPRINT-2

DATE	05 NOVEMBER 2022
TEAM ID	PNT2022TMID46164
PROJECT NAME	SMART FARMER-IOT ENABLED SMART FARMING APPLICATIONS

CREATE THE IBM WATSON IOT PLATFORM AND A DEVICE

- ★ IBM Watson IOT platform acts as the mediator to connect the web application to IOT device, so create the IBM Watson IOT platform.
- ★ To connect the IOT device to the IBM cloud, create a device in the IBM Watson IOT platform and get the device credentials.
- ★ Configure the connection security and create API keys that are used in the node-red service for accessing the IBM IOT platform.

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains icons for various platform features. The main content area shows a list of devices, with one device, 'smartfarmer_1', selected. The selected device's details are shown in a modal window, including its identity, device information, recent events, state, and logs. The 'Recent Events' tab is active, displaying a table of events with columns for Event, Value, Format, and Last Received. The events are listed as 'event_1' with various JSON payloads representing sensor data (temperature, humidity, soil moisture). The dashboard also includes a search bar, a user profile dropdown, and a status bar at the bottom.

Event	Value	Format	Last Received
event_1	{"temperature":15,"humidity":33,"soil moisture":...}	json	a few seconds ago
event_1	{"temperature":40,"humidity":81,"soil moisture":...}	json	a few seconds ago
event_1	{"temperature":8,"humidity":47,"soil moisture":6}	json	a few seconds ago
event_1	{"temperature":34,"humidity":55,"soil moisture":...}	json	a few seconds ago
event_1	{"temperature":82,"humidity":93,"soil moisture":...}	json	a few seconds ago

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A search bar is present with the text 'Search by Device ID'. Below the navigation bar, there is a table of devices. The table has columns: Device ID, Status, Device Type, Class ID, Date Added, Descriptive Location, and Added By. Two devices are listed: 'b11m3edevicelid_1234' (Disconnected) and 'smartformer_1' (Connected). The 'smartformer_1' device is selected, and its details are shown in a modal window. The details include: Device ID (smartformer_1), Device Type (smartformer), Date Added (Nov 17, 2022 2:42 AM), Added By (dharshinimaridurai@gmail.com), and Connection Status (Connected). The connection status also shows the connection time and client address. At the bottom of the dashboard, there is a status bar indicating '1 Simulation running'.

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
b11m3edevicelid_1234	Disconnected	smartfarmer1	Device	Nov 10, 2022 1:23 AM		dharshinimaridurai@gmail.com
smartformer_1	Connected	smartformer	Device	Nov 17, 2022 2:42 AM		dharshinimaridurai@gmail.com

Details for smartformer_1:

- Device ID: smartformer_1
- Device Type: smartformer
- Date Added: Nov 17, 2022 2:42 AM
- Added By: dharshinimaridurai@gmail.com
- Connection Status: Connected
- Connection Time: Nov 17, 2022 2:42 AM
- Client Address: 187.49.194.68 SecureToken

CREATE NODE-RED SERVICE

- To create a web application, create a node-red service
- To obtain the output

The screenshot shows the Node-RED web interface. The top navigation bar includes 'Node-RED', 'IBM Watson IoT Platform', 'Node-RED Dashboard', and 'MIT App Inventor'. The main workspace displays a flow diagram with several nodes: 'IBM IoT' (connected), 'Temperature Node', 'Humidity', 'msg payload', 'httpfunctionnode', 'http', 'light on', 'light off', and 'msg payload'. The flow is configured to receive data from the 'IBM IoT' device and process it through various nodes. The debug console on the right shows the output of the flow, displaying JSON objects with temperature, humidity, and soil moisture data. The status bar at the bottom indicates '20:57 13-11-2022'.

NODE-RED(OUTPUT):

