

PROJECT DEVELOPMENT PHASE

Delivery Of sprint 3

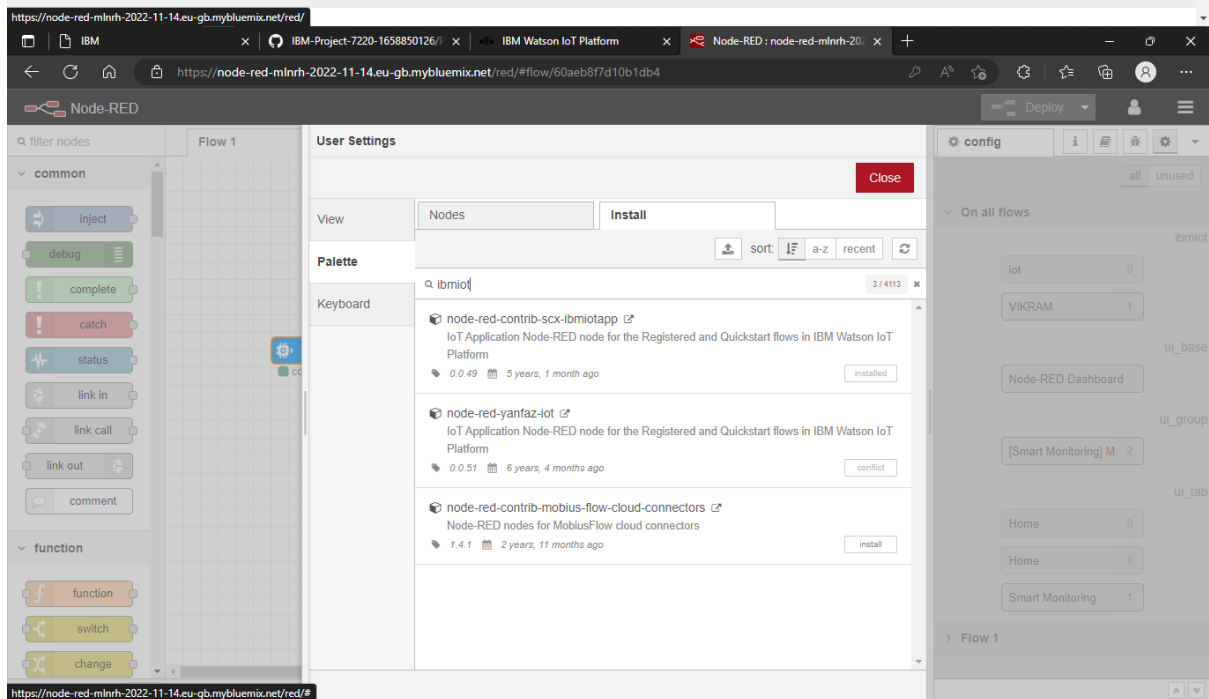
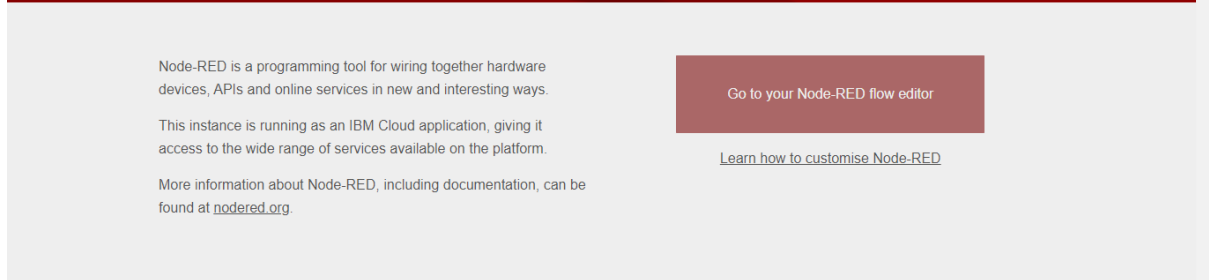
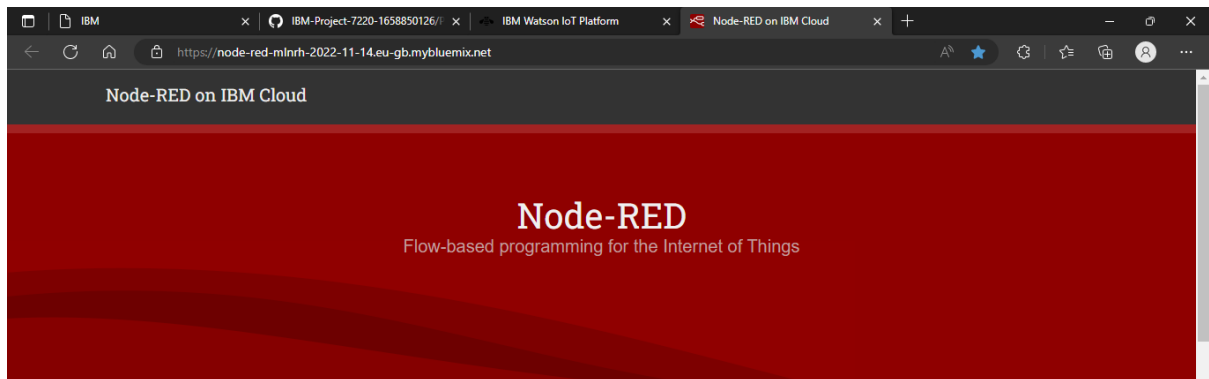
Team ID	PNT2022TMID06971
Project Name	Hazardous Area Monitoring For Industrial Plant Powered By IoT

NODE RED :

The image displays two screenshots of the IBM Cloud Developer console interface, specifically the Node-RED starter kit page.

Top Screenshot (Overview): Shows the 'Node-RED' starter kit details. The 'About' tab is active, displaying an overview of the kit, which includes a pre-configured Node-RED application, Cloudant service, and instructions for deployment. A 'Get started' button is visible at the bottom.

Bottom Screenshot (Create Form): Shows the 'Create' tab for the Node-RED starter kit. The form includes fields for 'App name' (pre-filled with 'Node RED GQXVW 2022-11-17'), 'Resource group' (set to 'Default'), 'Tags' (with examples like 'env:dev, version:1'), and 'Platform' (set to 'Node.js').



Node-RED interface showing the configuration of an IBM IoT node. The left sidebar displays a list of nodes under "common" and "function" categories. The main workspace shows a flow with an "IBM IoT" node connected to a "debug" node. The right sidebar shows the configuration panel for the selected node, titled "Edit ibmiot in node > Edit ibmiot node".

The configuration panel includes the following fields:

- Name: VIKRAM
- API Key: a-xpg940-vefxodr3w
- API Token:
- Server-Name: orgid.messaging.internetofthings.ibmcloud.com
- Scalable: ☐
- Application ID:
- Keep Alive: 60 Seconds
- Use Clean Session: ☒

Buttons: Delete, Cancel, Update

On all flows: ☐ Enabled ☒ 1 node uses this config ☐ On all flows

Node-RED interface showing the configuration of an IBM IoT node. The left sidebar displays a list of nodes under "common" and "function" categories. The main workspace shows a flow with an "IBM IoT" node connected to a "debug" node. The right sidebar shows the configuration panel for the selected node, titled "Edit ibmiot in node".

The configuration panel includes the following fields:

- Authentication: API Key
- API Key: VIKRAM
- Input Type: Device Event
- Device Type: ☒ All or
- Device Id: ☐ All or
- Event: ☒ All or
- Format: ☐ All or
- QoS: 0
- Name: IBM IoT
- Service: registered

Buttons: Delete, Cancel, Done

On all flows: ☐ Enabled ☒ 1 node uses this config ☐ On all flows

Node-RED interface showing the configuration of a function node named "temp".

Edit function node

Properties

Name: temp

Setup | **On Start** | **On Message** | **On Stop**

```
1 msg.payload = msg.payload.temp
2 global.set("t",msg.payload)
3 return msg;
```

☐ Enabled

config

all unused

On all flows

ibmiot

iot: 0

VIKRAM: 1

ui_base

Node-RED Dashboard

ui_group

[Smart Monitoring] M: 2

ui_tab

Home: 0

Home: 0

Smart Monitoring: 1

Flow 1

Node-RED interface showing the flow diagram and debug console.

Flow 1

Flow diagram:

```
graph LR
    IoT[IBM IoT] --> temp1[temp]
    IoT --> hum[hum]
    temp1 --> temp2[temp]
    hum --> hum2[hum]
    temp2 --> payload[msg.payload]
```

debug

all nodes | all

18/11/2022, 1:01:21 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : Object
{ temp: 40, hum: 56 }

18/11/2022, 1:01:21 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : number
40

18/11/2022, 1:01:22 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : number
56

18/11/2022, 1:01:23 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : Object
{ temp: 77, hum: 82 }

18/11/2022, 1:01:24 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : number
77

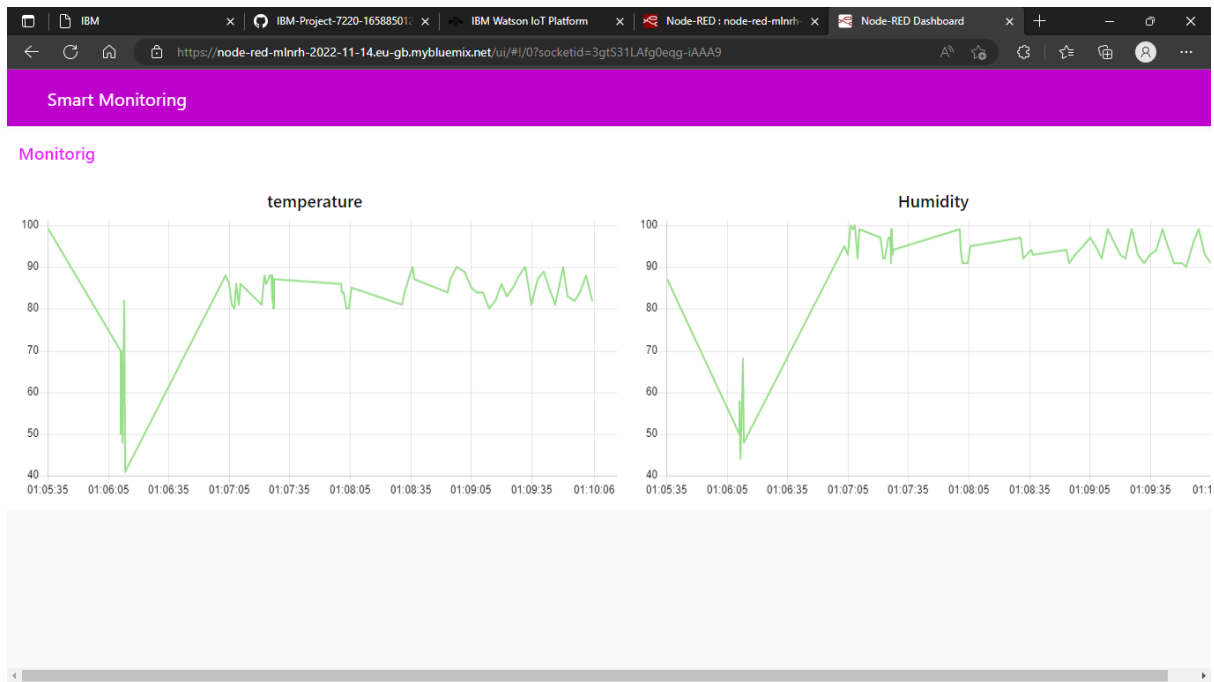
18/11/2022, 1:01:25 am node: 3b4763b51fe5314
iot-2/type/temp/id/123/ev/event_1/fmt/json :
msg.payload : number
82

Node-RED interface showing a flow with an IBM IoT node connected to a chart node. The chart node is configured with the following properties:

- Group: [Smart Monitoring] Monitorig
- Size: 13 x 7
- Label: temperature
- Type: Line chart
- X-axis: last 5 minute: OR 1000 points
- X-axis Label: HH:mm:ss
- Y-axis: min max
- Legend: None
- Interpolate: linear
- Series Colours: (Color selection palette)

The right sidebar shows the dashboard layout with tabs and links for Home, Smart Monitoring, and Monitorig, including sub-items temp and hum.

Dashboard layout editor: Smart Monitoring. The editor shows a grid layout with two chart widgets labeled "temp chart" and "hum chart". The width of the grid is set to 26. The right sidebar shows the dashboard layout with tabs and links for Home, Smart Monitoring, and Monitorig, including sub-items temp and hum.



MIT APP INVENTOR :

The screenshot displays the MIT App Inventor web interface in a browser. The browser's address bar shows the URL `ai2.appinventor.mit.edu/#4798620671803392`. The page features a green header with navigation links: **Start new project**, **Move To Trash**, **View Trash**, **Login to Gallery**, and **Publish to Gallery**. Below the header, a table lists the user's projects:

<input type="checkbox"/>	Name	Date Created	Date Modified
<input type="checkbox"/>	test	Sep 27, 2022, 2:20:29 PM	Nov 17, 2022, 11:53:22 PM

The main workspace is divided into four panels:

- Palette:** A sidebar on the left containing a search bar and a list of UI components such as Button, CheckBox, DatePicker, Image, Label, ListPicker, ListView, Notifier, PasswordTextBox, Slider, Spinner, Switch, TextBox, TimePicker, and WebViewer.
- Viewer:** The central area showing a mobile phone mockup. It displays a screen named "Screen1" with a large blue "VK" logo in the center. A dropdown menu above the phone indicates "Phone size (505,320)".
- Components:** A panel on the right showing the hierarchy of components on the screen. It includes "Screen1", "VerticalArrangement1", "VerticalArrangement2", "Image1", and "Clock1".
- Properties:** A panel on the far right showing the configuration for the selected "Screen1". It includes fields for "AboutScreen", "AccentColor" (set to White), "AlignHorizontal" (Left), "AlignVertical" (Top), "AppName" (test), "BackgroundColor" (Default), "BackgroundImage" (None), "BigDefaultText", "BlocksToolkit" (All), "CloseScreenAnimation" (Default), and "DefaultFileScope".

At the top right of the workspace, there are buttons for "Screen1", "Add Screen...", "Remove Screen", and "Publish to Gallery". A "Sign out" button and a "Delete Account" link are also visible in the top right corner.

