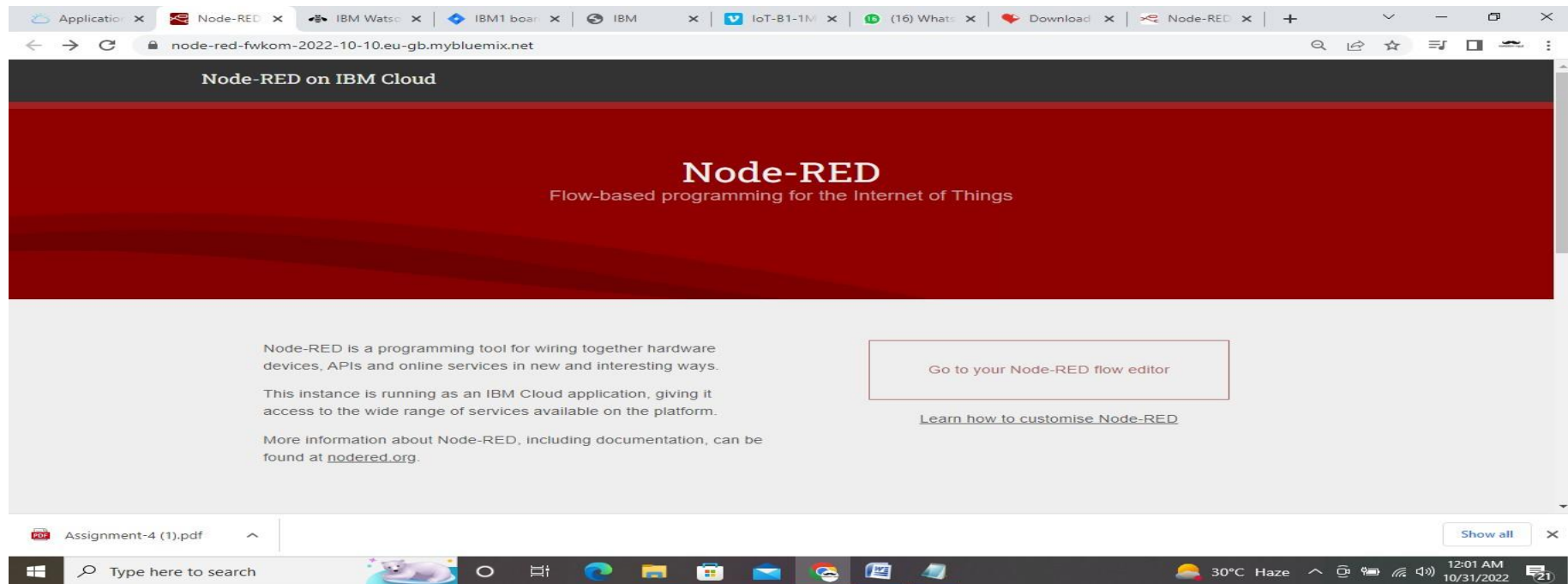


Project Development Phase Sprint-2

Date	5-NOVEMBER 2022
Team ID	PNT2022TMID35688
Project Name	Project – IoT Based Real-time River water quality monitoring and control system

USN-7

As a user, I can create Node Red by app deployment.



8

USN-8

As a user, I can get the API key through IBM Watson platform.

The screenshot displays the IBM Watson IoT Platform dashboard. The top navigation bar includes the IBM logo and the text 'IBM Watson IoT Platform'. The user's email address '815119106025@amartinternz.com' and ID 'ID: rv07c6' are visible in the top right corner. The main content area shows a success message: 'The API key has been added.' Below this message, there are two columns: 'Generated Details' and 'API Key Information'. The 'Generated Details' column contains the 'API Key' 'a-rv07c6-8ogwyewcqz' and the 'Authentication Token' 'O-C*1q+MaYoC43WOLj'. The 'API Key Information' column contains the 'Description' '-', 'Role' 'Standard Application', and 'Expires' 'Never'. A warning icon and text are present below the 'Generated Details' column, stating: 'Make a note of the generated authentication token. Lost authentication tokens cannot be recovered. If you lose the token, you must reregister the API to generate a new token.' At the bottom right of the message box are buttons for 'View API Key', 'Add Another', and 'Close'. Below the message box is the 'Browse API Keys' section, which includes a search bar and a table of API keys. The table is currently empty. At the bottom of the dashboard, there is a status bar showing '2 Simulations running' and a 'Show all' button. The Windows taskbar at the bottom of the screen shows the time as 3:38 AM on 10/31/2022, with a temperature of 30°C.

IBM Watson IoT Platform

815119106025@amartinternz.com
ID: rv07c6

Browse IBM Cloud Apps

The API key has been added.

Authentication tokens are non-recoverable. If you misplace this token, you will need to re-register the API key to generate a new authentication token.

Generated Details

API Key a-rv07c6-8ogwyewcqz

Authentication Token O-C*1q+MaYoC43WOLj

API Key Information

Description -

Role Standard Application

Expires Never

Make a note of the generated authentication token. Lost authentication tokens cannot be recovered. If you lose the token, you must reregister the API to generate a new token.

View API Key Add Another Close

Browse API Keys

Type the app description to search for

2 Simulations running

Show all

USN-9

As a user, I can design the flow in Node Red.

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL `127.0.0.1:1880/#flow/2c31fab4f92e7193`. The interface includes a left sidebar with node categories (common, function), a central workspace for 'Flow 1', and a right sidebar for debugging.

Flow 1 Diagram:

- IBM IoT Node:** A blue node labeled 'connected' that receives input from the left.
- msg payload Node:** A green node that receives input from the IBM IoT Node.
- Function Nodes:** Three orange nodes labeled 'temperature node', 'pH', and 'Turbidity' that receive input from the msg payload Node.
- Output Nodes:** Three teal nodes labeled 'temperature', 'pH', and 'Turbidity' that receive input from their respective function nodes.

Debug Console:

The debug console shows a series of messages. The first message is an Object:

```
{ Temperature: 59, PH: 5, Turbidity: 72 }
```

Subsequent messages show the 'node: msg payload' and 'iot-2/type/riverwaterquality-22_23/id/123456/evt/Data/fmt/json : msg payload : Object' for each of the three output nodes, with the following data:

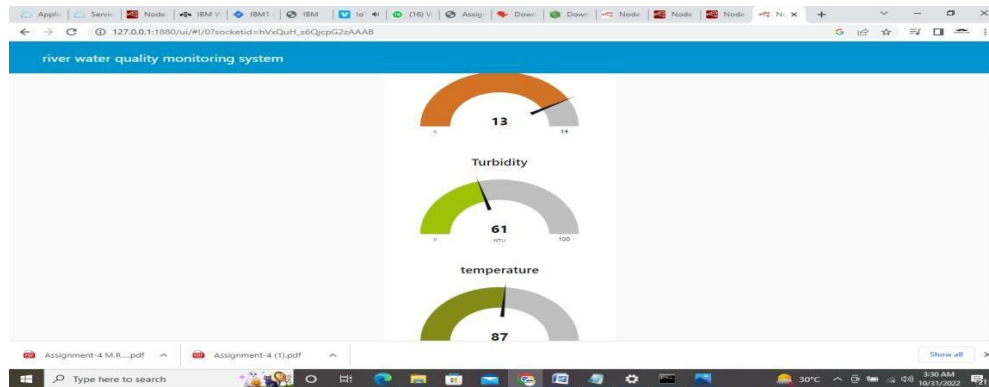
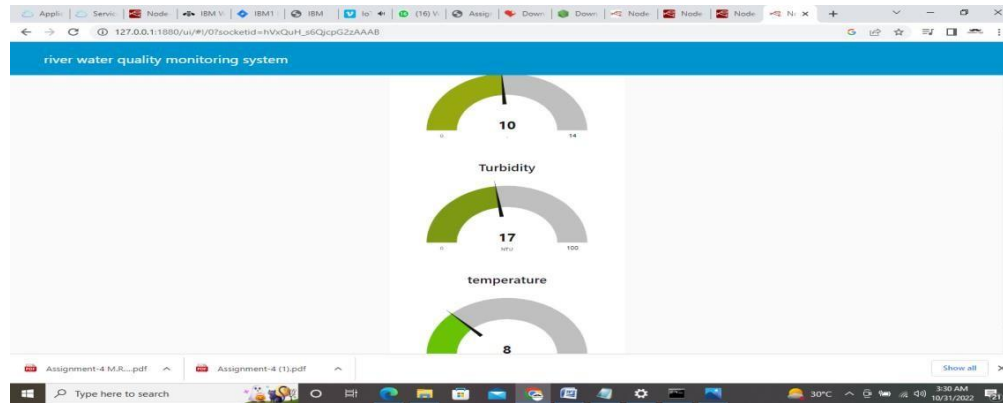
- temperature: { Temperature: 17, PH: 5, Turbidity: 42 }
- pH: { Temperature: 5, PH: 9, Turbidity: 2 }
- Turbidity: { Temperature: 57, PH: 9, Turbidity: 32 }

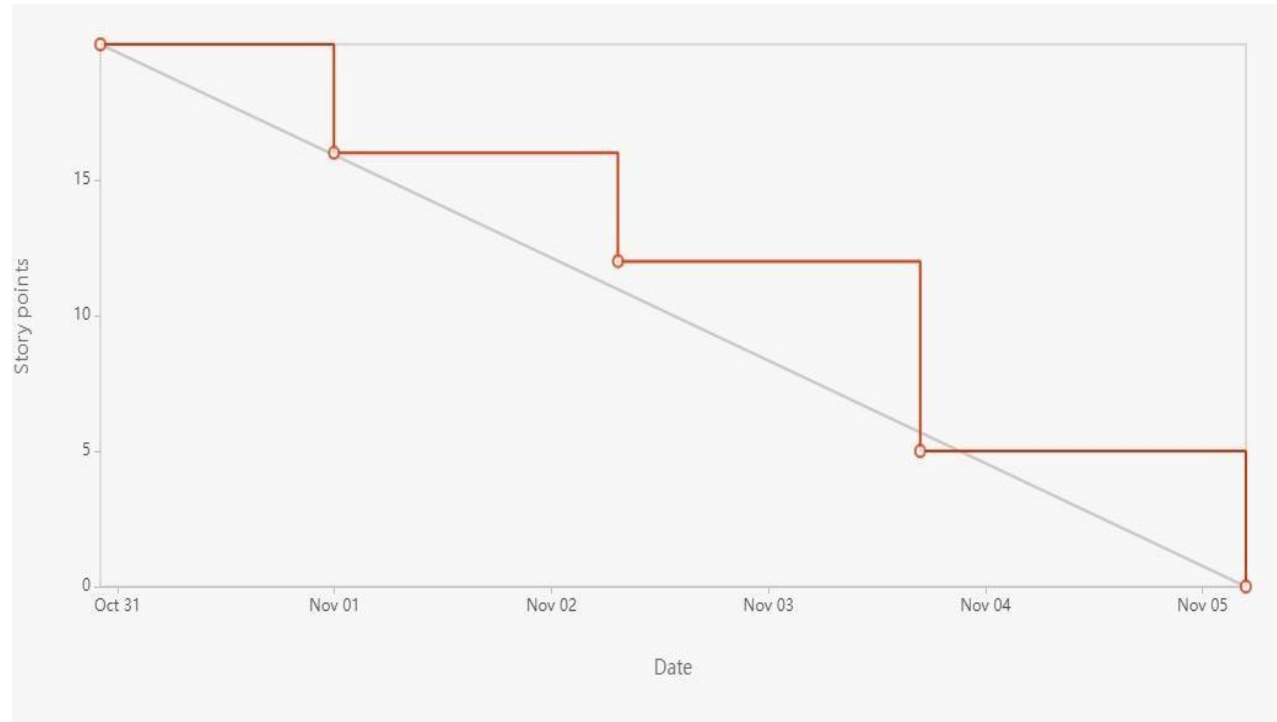
The bottom of the image shows a Windows taskbar with the search bar, task icons, and system tray information (30°C, 3:37 AM, 10/31/2022).

8

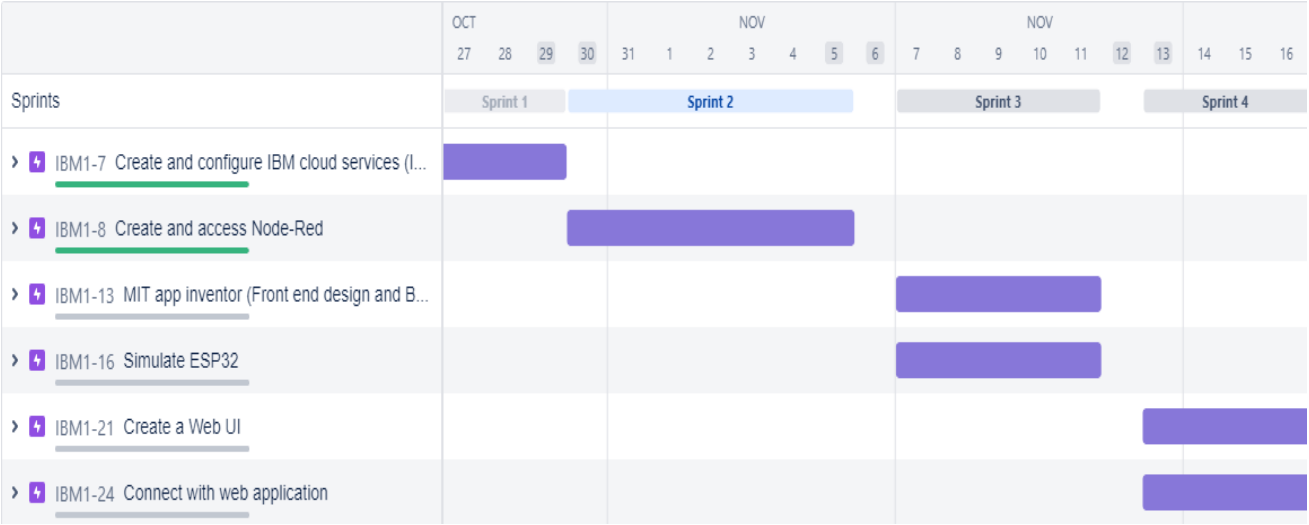
USN-10

As a user, I can check for the gauge output.



SPRINT BURNDOWN CHART:

ROAD MAP:



VELOCITY CHART:

